AMERICAN AGRICULTURIST.

Designed to improve all Classes interested in Soil Culture.

AGRICULTURE IS THE MOST HEALTHFUL, THE MOST USEFUL, AND THE MOST NOBLE EMPLOYMENT OF MAN—WASHINGTON

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August.

"Happy the man who flies the city's throng!
Ev'ry tree, ev'ry brook that flows along,
Ev'ry pebble within its sparkling brim
Preaches wisdom and holiness to him.

Each shadowy copse, is a temple shrine,
Where Heaven o'erflows his soul with love divine,
Where ev'ry hillock, and each verdant clod
An altar is, where he bows down to God."—HOLTY.

Country life is a favorite theme with the poets. Both English and German poetry is full of its praises. Its every aspect is invested with rose color, from the soaring of the lark heavenward at early dawn, till twilight has faded, and the stars are shining. It is eulogized as the most useful, the most beautiful, and the most favorable to virtue, of all the conditions in life in which men can be placed. These positions are probably true. The only wonder is, that those who enjoy the blessings of country life furnish almost exclusively the skeptics in regard to the lessons the poets teach. Multitudes grow discontented every year, sell out, their farms, and rush to the city as if it were a paradise. If they should chance to take this month for their entrance upon city life, we think their dreams of happiness here would be very suddenly dissipated. With the thermometer at ninety and upwards by day, in the shade, and only a little less hot by night, with the sweat pouring off from every part of the body in streams, with the streets at noon-day like the breath of a furnace, with the gutters sending up all unsavory smells, we should like to see a man fall in love with city life. He must be, at least, half Salamander to do it. Here, almost without exception, the longing is for the country air, the green fields, the forests, the mountains, the sea shore, where the lungs may inhale a cool fresh breeze.

Why is it that country people are so often discontented with their lot, and that the young in such numbers seek the artificial excitements of the city? With many it is purely a love of adventure. To them the city is an unknown land, that they have only read of in books, or heard of from some chance fortunate individuals who have visited it. They hear of its wealth and splendor, its fete days, and gorgeous displays, its places of amusement, its parks and fountains, its ships and steamers, its streets thronged with people in splendid dress. It seems to them, that the people have nothing to do but to dress well, live fast, and enjoy themselves. Their ideal of enjoyment is very much that of the hero in the once popular song of "Old Zip Coon."

"Were I General Jackson, president of these United States
I'd lick 'lasses candy and swing upon the gates."

The city is the very place where they would enter upon this elevated enjoyment. They hear nothing of the gaunt poverty of the city, nothing of the narrow filthy abodes where the poor congregate, nothing of the want of work and want of bread, which press so heavily upon multitudes. They want to see the gay city, of which they have heard so much, and dreamed so often. It is that spirit of adventure which leads many to choose a sea faring life, to hunt the whale in the Arctic seas, or the seal and the walrus upon their barren rocks. They come hither, and have their eyes opened.

Others are led to the city, mainly, by the pecuniary argument. They have no doubt that country life is, on the whole, the most pleasant and happy. They have grown up amid rural scenes, and they have a hearty enjoyment of the simple pleasures of the husbandman. They love the smell of the clover fields when waving with blossoms, or reeking with the odor of new mown hay. They rejoice in the fat pastures, and the fatter kine, in the fields of wheat and maize, in the sty where grunters luxuriate, and in the yard where geese gabble, turkeys strut and gobble, ducks quack, and hens announce their astonishment at new laid eggs. But they have an utter want of faith in the *profitableness* of these pursuits. "What does it profit," say they, "though the farmer have his fields full of the yellow wheat, and his bins full of the golden corn; he has precious litttle of the yellow metal in his purse. He may have a home indeed, but he has to stay there for want of the money to get away. He must be closely confined to his labors, or they will not prove profitable. He must be content to know little, and to be little known, beyond the limits of his own town. In society he is an uncouth man, that gentlemen do not wish to associate with."

This consideration probably has more weight with the young, than any other. They want to be richer and more influential in the world than they think they can be on the farm. But this idea, that a man is rich in proportion to the money his labor commands, is fallacious. More than one half of the necessaries of life is furnished to the farmer directly by his own labor. It is none the less valuable, because the money is not paid for it. The mechanic and the clerk in the city have to pay cash for these articles.

Let us look a moment at some of the things which the farmer is accustomed to overlook in the estimate of his blessings. In the first place, his capital, invested in his farm and buildings, is the most *secure* form of investment. The land will not run away, nor greatly depreciate. If he improve it well, it will double in value every ten years, in most cases. Then his buildings are much less exposed to fire, and insurance is very cheap. The clerk or other person, in the city, has no security of this kind. He receives ten or twelve hundred dollars a year for his services—though in reality very *few* get half of that sum. All his capital, at the beginning, is invested in his person, and if his health fail, his means of support are cut off. He has nothing to fall back upon. If he accumulate capital and invest it in his business, the articles in which he trades are generally perishable, and liable to suffer loss by fire or flood.

Then the clerk has to pay several hundred dollars a year for house rent—and if he live in the suburbs, as is the fashion, from fifty to one hundred more, for traveling expenses, between his home and his business. The farmer, in the main, supplies his own table—except a small bill at the grocer's, for tea, sugar and coffee, which he pays in barter, and if he is sharp, generally contrives to bring the grocer in debt, with his wood and lumber, his butter and cheese, his eggs and chickens. The clerk has to pay for everything in cash. The head of lettuce or cabbage, the cucumbers and squashes, the green corn and beans, the potatoes and turnips, and other products of the garden, which cost the clerk a heap of money, are so common with the farmer, that he hardly thinks of them as costing any thing. He raises his own meats, eggs, and poultry. The clerk pays for similar articles from one to two hundred dollars. The farmer can live and dress as he has a mind to. The clerk has his style of living and dress prescribed to him. He must come up to the standard or lose caste in his circle. He is in bondage to social usage. The farmer is independent. If he wants to wear his hat or coat five years, instead of one, nobody quarrels with him; his wife does not give him curtain lectures. He sleeps well of nights though his boots and pantaloons both have patches. Whatever his learning, he passes for a gentleman and a scholar, and is far more likely than the clerk, to go to the State Legislature or to Congress.

With the spare cash which the farmer has at the end of the year, he can obtain all that the clerk can, with his large salary. The salary alas! is too often all gone before the year comes around. The farmer, at least, always knows where his dinner is coming from, and how the next quarter's rent is to be paid. These are often solemn

questions with the clerk, and beyond his arithmetic to answer.

For the *large majority* of the race, there can be no doubt, that country life is the most lucrative as well as the most beautiful. Their skill and labor will procure more of the comforts and luxuries of life, than they could ever gain in the city.

Calendar of Operations for August 1858.

[We note down sundry kinds of work to be done during the month, not so much to afford instruction to practical men, as to call to mind the various operations to be attended to. A glance over a table like this will often suggest some piece of work that might otherwise be forgotten or neglected. Our remarks are more especially adapted to the latitudes of 38° to 45°; but will be equally applicable to points further North and South by making due allowance for each degree of latitude, that is, later for the North, earlier for the South.

EXPLANATIONS.—*f* indicates the *first*; *m* the *middle*; and *l* the *last* of the month.—Doubling the letters thus: *ff*, or *mm*, or *ll*, gives particular emphasis to the period indicated.—Two letters placed together, as *fm* or *ml*, signifies that the work may be done in either or in both periods indicated; thus, work marked *fm*. indicates that it is to be attended to from the first to the middle of the month.]

Farm.

Except at the far north, the cutting of hay and wheat is now over and the present is, by some, called a month of leisure; but the thrifty farmer will find quite enough to occupy his time. His business is not as pressing as during "hay and harvest," and he may properly enjoy a little relaxation with his family, and let the *boys* "go fishing." But his farm crops must not be neglected, and now is a favorable opportunity to make many improvements upon the place, to collect and compost manures for Winter grain and Spring crops of next season. "A penny saved is two pence earned," should be borne in mind by those who spend large sums annually in the purchase of foreign manures, while the farm has a "mine" of muck or black earth, not yet worked, or it can be had for a trifle from a neighboring swamp.

Barn yards should be examined to see that no wash finds its way into the highway or upon a neighbor's farm. Provide sheds for the manure, and allow no weeds to go to seed about the yards.

Bushes, briers and weeds along hedges and in pastures should now be cut or grubbed up. Bushes "whipped" this month will not sprout readily.

Butter and Cheese making will form a very important part of "household labors," in all of which neatness is an essential requisite.

Cabbages—Late ones may still be planted out, ff, on grounds already free, or soon to be cleared of early crops.

Cattle—See that their grazing lands are sufficient. Give milch cows a little of the soiling crop each day to keep up a good supply of milk, especially if it is for market. Cross the cows and two-year-old heifers with a Durham, Devon or Ayrshire male, and so improve your stock.

Cellars—Keep sweet and clean and well ventilated.

Corn—Keep the fields free from weeds, but do not plow or cultivate so deep as to injure the roots at this season. Early plantings for forage may be gradually cut and fed.

Cotton—Prepare baskets, sacks, gin stands, presses, &c., in the early part of the month, that there be no detention when the picking season commences at the south, about the middle of the month.

Draining—Reclaim swamps, and double the value of wet lands by thorough drainage. Read the chapters in former numbers, and employ the leisure of this month in following out the directions there given.

Fences—Keep in good repair. Do not invite your cattle to become unruly by leaving a bar down here, a rail or board off there, and a broken down wall in another place. As feed becomes short in the pastures, they are apt to examine closely the fences which separate them from better pickings.

Forests—The present is a favorable month to cut off forests for the purpose of bringing them under tillage. After removing the larger wood, spread and burn the brush, m, l, for a crop of rye or wheat.

Grain and Granaries—Thresh early and watch the market and speculators at the same time, not omitting to "take the papers." Cleanse granaries and put a little tar in the crevices, the offensive odor of which is frequently a preventive of the attack of weevils and other insects in the bins. See that everything is mice and rat proof.

Hay—Cut salt and sedge, selecting neap tides in order to remove it without being flooded. Stack upon high grounds, or give it barn room.

Hoeing should not be neglected as long as weeds continue to grow.

Hogs—Keep their pens and yards well supplied with manure materials, and compel them to contribute in part towards their support, as manufacturers. Store hogs may continue in pasture or orchard, but those for early fattening should have a smaller range and more feed.

Manures—Pay particular attention to their manufacture, collecting from the woods, muck swamps, ponds and road-sides, everything valuable and compost with fish and sea-weed. Keep hog and cattle yards covered with muck and collect the droppings each morning, throwing them in a heap under cover. Lands will now need manuring for the crop of Winter grain soon to be put in.

Millet—Commence cutting for milch cows, ff. Secure the whole crop before the seed hardens, unless the grain is wanted.

Mowing Fields—Whenever you have time clear from stumps, bushes and stones, that the mowing machine and horse-rake find no obstruction. It is a good time to cut under-brush and weeds.

Muck—Dig in dry weather and cart a goodly supply to your yards and stable, not forgetting the privy, where, in addition to the manure it makes, it forms a very good disinfector.

Oats—Complete harvesting, ff. Do not allow them to get too ripe, thus injuring the straw for feeding.

Pastures—See that the feed is sufficient for grazing animals. A frequent change of grounds is beneficial.

Plow deep for Winter grain, m, ll, manuring well. It is better to plow sward land, ff, even, and harrow it several times during the month previous to sowing.

Potatoes—Early plantings are now ready for market and the ground may receive a crop of cabbages, turnips, or be sown to wheat or rye in the early part of next month.

Poultry—Look to, especially if confined in houses and yards. Keep the roosts and nests clean, and if troubled with vermin, dust the fowls with flour of sulphur.

Rice—Complete cutting at the south, m, l, shutting off the water for a week or ten days previous to harvesting.

Root Crops—Keep the ground free from weeds and well stirred between the rows.

Rye—Complete harvesting both Winter and Spring varieties. Sow Winter crop, ll, or early next month, using one and-a-half bushels to the acre.

Seed Wheat, Rye, &c.—If all foul stuff was pulled from the seed patch, it will only be necessary to thresh with flails, and sift out the small shriveled grains. Before sowing, it is well to soak in strong brine which will float any poor grain and separate oats or chess, besides preventing smut. Plaster or lime sifted on while wet with the brine is an additional benefit—the lime being a special remedy for smut.

Sheep—Protect from dogs by placing bells upon a few of the flock. Rub a little tar upon the nose to keep away the fly. Give salt freely. Tar is sometimes spread over a trough and salt scattered upon it. In eating the salt they smear their noses with tar.

Soiling Crops—Give cows and other stock a portion of the millet, green corn or sugar cane sown for fodder; now that the feed is getting short.

Timber—This is one of the very best months for cutting timber to last.

Timothy—Sow with rye and wheat, ll. If sown by itself we prefer the 10th to the 15th of the month. In either case use about 12 quarts of seed per acre. A better seeding and an improved quality of hay will be the result.

Tobacco—Commence harvesting when the leaves have acquired a mottled, gummy appearance and break when doubled over.

Turnips may still be sown, ff, m, among corn and potatoes, or after early crops. Flat or cow-horn varieties should be used instead of rutabagas for such late sowings. Cultivate, hoe and thin former plantings.

Weeds—Make into compost, or feed to swine instead of, raising for *seed*, particularly about the manure heap. Thistles may be destroyed by mowing when in bloom—cutting them a few inches from the ground.

Wheat—Cut Spring varieties at the north, f, m. Prepare grounds at the same time for sowing, ll, or early next month. Nearly two bushels of seed per acre is about the best quantity to use for broadcast sowing on ordinary soil, taking one season with another. It is oftener found too thin than too thick.

Orchard and Nursery.

The Orchard is now yielding its finest fruits, such as luscious peaches, bloom covered plums, melting pears and the early juicy apples, the sight of which, as one beholds his heavily loaded trees, causes a watery sensation about the palate; in the satisfaction and apparent profit, the fruit grower feels repaid for all his toil. While enjoying them let him provide for the dearth of Winter and Spring by putting up a good supply in cans or jars, which can be opened at any time, and give the farmer fresh peaches in January. See the particulars on page 217 last month, and elsewhere in the present number.

In both Orchard and Nursery the Summer pruning commenced last month, may be continued during August. The chief work of the Nurseryman for the present, however, is

Budding—Which should be continued on the different varieties as the state of the stock and ripeness of the buds indicate the proper season. It is useless to attempt budding when the bark of the seedling will not separate readily. Those inserted last month should be examined in about three weeks after the operation and bandages loosened if necessary. Rebud if the first has failed to unite Pay strict attention to the source from which buds are obtained. A few spurious shoots may cause much mischief, or loss of trees and time at least.

Caterpillars—Examine for late broods of these, and check their ravages at once.

Fallen Fruit—Collect by hand, or allow swine a range of the orchard. Cook all that falls prematurely, to destroy the worms remaining in it. Read article on the Curculio on another page.

Fences—Keep in good repair, as cattle are fond of nipping off the new growth if an entrance can be obtained to the grounds.

Hoeing of Nursery grounds should not be neglected this month, nor should the soil about newly planted, or even other fruit trees nourish a crop of weeds or grass.

Inarching—This is the proper season for performing the operation upon many trees and plants.

Insects—Search for borers among the apple and peach trees. Read the plainly written article on another page, and follow the directions there given.

Manures—Provide for new grounds to be planted in the Fall and Spring. Muck and leaf mold mixed with stable manure form a good compost for trees.

Peaches will need gathering and marketing or putting up for Winter during the early part of the month. Pick before they are soft, else they will bruise in handling.

Pears, particularly early varieties are now ripening and should be gathered and laid upon shelves or sent to market while firm. The flavor is not injured but rather improved by picking before fully ripe and maturing them in houses.

Plow or run the cultivator through nursery rows often.

Pruning—Complete, f, m. We strongly advise Summer and Fall pruning in preference to deferring it till Winter or Spring.

Seedlings of all kinds should be kept free from weeds. Shade the evergreens and other varieties liable to burn off, by a partial screen, or place them under the branches of trees.

Seeds of Nursery Stock—Collect as they ripen and label with care.

Stones or Pits—Collect and put in the ground or in boxes of moderately dry sand or earth. If long kept in a dry state they will rarely vegetate.

Thin late fruit, ff, if not already attended to.

Vines—Continue to train new growth, and layer for an increase of stock.

Weeds are perchance *eating* and *drinking* what should be food for the trees. Let the hoes make slaughter among them. Clean tillage is as desirable in an orchard and nursery as elsewhere.

Kitchen and Fruit Garden.

With the exception of a little late planting where the early crops are coming off, attention to the *growing* crops will require most of the gardener's care. In addition, if raising vegetables and fruits for market, he will be able to send away, blackberries, peaches, plums, cabbages, cauliflowers, potatoes, beets, carrots, onions, green corn, cucumbers, peas, beans, turnips, kohl rabi, &c., so that no day need pass without having something for sale. The soil from which these crops are taken should not be allowed to spend even the remainder of the season in idleness while there is an increasing demand for almost every cultivated vegetable production. A glance at the table below will call attention to most of the garden products, commencing with the

Asparagus Bed, which should not be given up to weeds now that its season for usefulness is over. Keep it as clean as heretofore for the future benefit of the bed.

Beans—Early Kidneys may still be planted, ff, except at the far North.

Beets—Thin those sown last month. Early ones are ready for use. Pull from the thickest parts of the bed.

Blackberries are in the hight of bearing and require daily picking.

Cabbages—Cauliflowers and Brocoli—Plant, ff, for late use, if they were not all put in last month. Keep grounds well stirred about former plantings. Seed may be sown, f, m, for collards or greens for Fall use

Celery—Put out the remaining crop, ff, wetting both the trenches and the plants after setting. The early plantings may be earthed up slightly, ll.

Corn—The early plantings should furnish a supply for the table, m, ll. Hoe often that which was planted last month.

Corn Salad—Sow, ll, for Winter and Spring crop.

Currants and Gooseberries—Prune, m, l, cutting out old decaying wood. Head back, and shape to a tree or good bush form.

Espalier or Wall trees—Regulate branches, and prune if necessary.

Grape Vines—Read chapter on page 212 of the July number, and keep vines well tied up. Remove unnecessary side shoots and pinch back bearing branches.

Herbs—Complete gathering, cutting while in full flower. Dry and pack in tight boxes or bottles after sifting.

Hops—Pick during dry weather as they ripen, spreading until perfectly dry when they may be put in bags and hung away for use.

Insects—Continue to destroy those injurious to vegetation as per directions elsewhere given.

Lettuce—Sow and plant out, f, m, l, for Autumn use.

Mushrooms—Collect spawn, ff, and make beds, m, l.

Onions—Sow, ll, for sets to plant out next Spring. Pull and dry those sown early.

Peas—Sow, ff, for late. Clear grounds of the haulm or straw of early crops and resow with peas or turnips.

Potatoes—Dig for early use and for market, using the ground for a second crop of some sort.

Preserving or Canning Fruit and Vegetables—Put up a good supply for next Winter, now while they are abundant and can easily be spared.

Radishes—Sow, f, m, for late use. Sow Black and White Spanish or Winter radishes, f, m.

Raspberries—Cut out bearing canes which have ripened their crop. Collect and house the stakes. Give the new canes good tillage, as upon these depends the next crop.

Seeds—Collect as many as possible and preserve them in dry places, labelling with care.

Spinach—Sow, f, m, l, for Autumn use, and, ll, for a Spring crop. Scatter a little lettuce seed among it.

Strawberries—Make beds and plant at any time during the month, mulching and watering freely.

Tomatoes—Stake or bush, ff.

Turnips—Sow Rutabagas, ff, except at the North where flat varieties will succeed best at this season. Read chapters in last number, page 197.

Water—Give slops, wash water, &c., to currant bushes, strawberry beds, and newly planted vegetables.

Weeds—Raise *vegetables* instead of a crop of *weeds* to impoverish the soil, and leave seed for future toil or labor to exterminate.

Winter Cress—Sow, m, l, for Winter and Spring crop.

Flower Garden and Lawn.

Many of the directions given last month will apply for the present. Annuals now present a fine show of bloom, and late perennials succeed the early flowering varieties. The principal labors in this department should now be directed to keeping the grounds clean and attractive, and the soil loose about the plants. Many of the potted plants brought from the houses in June, will require a shift into larger pots.

Bulbous Plants—Those intended to be removed this season should be lifted, ff, if not done last month. Some of the earlier blooming varieties, such as Snow Drop, Crocus, Iris, &c., may be planted, ll, although next month will be in season. Now is a proper time to sow seeds, for new varieties.

Carnations and Picotees—Continue to layer, ff, m. Separate and plant out former layerings which have rooted, watering freely, and shade from the hot sun.

Chrysanthemums—Layer, f, m, those intended to propagate. Some of the early layers or cuttings are now ready for potting.

Clarkia and Coreopsis—Sow in pots or on warm borders, ll, for Fall and Winter bloom in the houses.

Dahlias are now the "Pride of the Garden," if a goodly number of various colors were interspersed at planting time. Stake to prevent injury by winds or storms, and prune off superfluous branches. Frequent waterings, and a mulch about the roots improve the appearance of the bloom.

Flower Stalks—Cut away perennials and biennials as fast as they complete their bloom, and remove annuals entirely, giving the space to later varieties. Fuchsias do best at this season, in a somewhat shaded situation.

Gravel Walks—Hoe or weed often, raking smoothly and rolling.

Hedges—Clip, m, l, unless it was done during the latter part of last month.

Hoe often all cultivated grounds, walks, &c., removing the weeds with the rake.

Hollyhocks—Propagate by suckers, or cuttings of the same. Keep tied to strong stakes.

Hydrangeas—Put in cuttings or layer, ff.

Insects—Do not allow them to increase even if they are not as troublesome as earlier in the season. Continue the Whale Oil Soap mixture for slugs on rose bushes. A dusting of lime or wood ashes will accomplish the same purpose, though less effectually.

Lawn and Grass Edgings—Mow evenly every two weeks and rake off. Sow Seed, m, l, on bare spots and new grounds.

Mignonette sown, ff, will form fine plants for Autumn and Winter blooming in doors

Pansies—Plant seed, ff, for Spring bloom. Continue to layer and remove those which are well rooted.

Pelargoniums—Propagate by cuttings, ff, m. Head back straggling plants.

Perennials—Fibrous rooted, such as Sweet William, Scarlet Lychnis, Ragged Robin, &c., may be parted and transplanted, m, l.

Pœonies—Tree varieties may now be grafted.

Potted Plants—Loosen the earth on the surface of pots, and remove any decayed leaves, watering freely during the dry weather.

Prune Shrubs and Trees upon the Lawn, or borders, if necessary, always using the knife sparingly upon shade trees, although where it is to be done, this is a suitable month for the operation.

Roses—Continue to bud and layer, ff. Use the oil soap recommended last month, as long as the slug is to be seen.

Ten Week Stocks—Sow, m, l, for early Spring blooming.

Transplant any late annuals still needing it, watering thoroughly both before and after setting. Shade for a few days if dry hot weather succeeds.

Verbenas and Petunias—Layer, ff, m, for Winter and Spring blooming in houses.

Water—Give to potted plants especially, and those newly planted out. If very dry an application both morning and evening will be beneficial to those which absorb rapidly. It is better to mulch the ground before watering.

Weeds should only be found in the Flower Garden in the shape of *native wild flowers*, many of which are worthy of a place here. Our choicest flowers are mostly found in a wild state where they originated.

Green and Hot Houses.

A large number of plants are still in the Flower Borders, or in pots in the open air and are treated under "Flower Garden." Those remaining will need abundance of air each day when the weather is favorable. The houses will require putting in order and other arrangements completed for taking in the plants next month. A large quantity of prepared mold should also be in readiness for changing and potting off plants.

Azalias—Give plenty of air and water, syringing frequently. Shade from hot sun, and guard against thrips.

Budding—Complete, f, m.

Bulbs—Pot a few, m, l, for Winter forcing.

Callas—Repot, f, m, watering moderately.

Camellias—Finish repotting, bud and inarch, f, m. Syringe and water freely. Grafting may also be done, m, l.

Chrysanthemums—Shift into blooming pots, giving liquid manures.

Cuttings of a large number of plants should now be made and put in to get up a good stock for Winter.

Earth in Pots—Loosen or stir, renewing where necessary. Top dress, or give liquid manure to plants which need a more rapid growth.

Fumes of Tobacco—Give houses containing green fly, aphis, thrips, &c.

Gloxinias—Those done blooming may now "dry off."

Grapes are already cut in the earliest houses and the ventilators should all be opened to allow the vines to ripen off. In later rooms they are coloring or still increasing in size according to the forcing they have had. Guard against the appearance of mildew.

Houses—Commence early to put them in order, before plants are brought in. Repair shelves and beds, glaze windows, cleanse the whole house thoroughly, have ropes, weights and pullies in working condition, look to the heating apparatus, and lastly paint those houses requiring it, being careful to empty them from all tender succulent plants at the time, else the poisonous gas from *new paint* will cause defoliation.

Insects—Allow none to increase as the brooding season draws to a close. Fumigate, syringe with pure water and the Whale Oil Soap mixture.

Labels—Prepare for all potted plants, writing both *generic* and *specific* names upon a painted surface.

Layering and In-arching—Continue, f, m, as directed upon another page. Some of those plants layered or inarched in the early part of the season are now ready to be separated, and potted.

Oranges, Lemons, Citrons, Shaddocks, &c.—Complete budding, ff, m. Top dress those pots or tubs which require it.

Pelargoniums—Repot and make cuttings of, ff.

Potting—This is the appropriate season for shifting generally, and potting off seedlings. Complete early, that they may become established before Winter.

Seeds—Watch the ripening of and collect, ff, m. Sow calceolarias, cinerarias, mignonette, sweet alyssum, chinese primroses, pansies, pelargoniums, clarkia, &c., m, l, to get up a stock for Winter bloom.

Stake weak shoots, and turn often.

Tender Plants, and those for early Winter bloom.—Take in, ll.

Verbenas, Petunias, Geraniums, &c.—Layer and make cuttings, ff, m, for Winter flowering. Pot off those made last month

Water—Give abundantly inside, and to pots in the border. Syringe the foliage and walls of the house both morning and evening, sprinkling the floors at the same time.

Apiary for August.

BY M. QUINBY.

There will be more wax-moths, besides many other varieties of moths, prowling around the bees this month, than at any other season. Now these poor weak creatures, like some others who bear the image of a more noble being, have a fatal weakness—an appetite, for a few moments gratification of which everything is sacrificed, even life. *They are fond of strong drink.* Mix well sugar or molasses and a little vinegar and water, making the "contrast" agreeable—the sweet and the sour. Put this in shallow dishes, saucers, or tin baking dishes, and set them among the bees at evening. Next morning the moths may be found by scores in the liquid, having got beastly drunk, and pitched in—some of them will be full, even to bursting. Strain them out, and set the liquor away for another night—they like it better after fermenting a little. The moths make a good meal for the chickens, which after a few treats of the kind are quite sure to be on hand.

Late or small swarms that have not yet filled the hive with combs, will suffer more from moths than others. For these take some pieces of any old black comb, and lay it on the floor under the bees. Take it out twice a week and destroy all worms that have gathered about it. If nothing of this kind is at hand, the next best thing is to keep all dust and chips swept out clean, so that no worms can hatch at the bottom and go up to the combs.

Look into the corners of the hive, and remove all cocoons lodged there. *Be cautious in turning back a hive part full of new combs:* they will bend side ways, unless the hive is turned so that the edges rest on the side.

Any stocks running down from diseased broods, that were neglected last month, should be attended to yet, and transferred to sections where much buckwheat is raised. Whenever bees can have access to a full supply of these flowers, all *strong*, full stocks ought to store at least twenty pounds of honey in the boxes this month. Give them abundant room; if it is not all filled, no harm will be done. Surplus boxes should not be higher than five or six inches.

The small pieces of new white comb should not be forgotten. Dip one edge in melted bees wax and stick it fast in the top before cooling; it is quite important as an encouragement for the bees to begin. When a large supply of such combs can be had, enough to fill the boxes may be put in on the start, setting them up in a natural position: hives so prepared will be filled with honey in much less time than when all the combs have to be constructed.

Swarms that issue this month, seldom amount to much, and the parent stock is much reduced; such swarms should have their queens taken from them and then be returned to the old stock. They will seldom reissue at this season with a young queen. Keep boxes of surplus honey in a *dry* place and cool if possible. Keep a lookout for the moth worm in them. If it appears, put the boxes in a close barrel or box, and smoke with brimstone.

Aberdeen Turnips.

A subscriber in Orange Co., N. Y., writes: Seeds under the name of White Aberdeen Turnips, have been peddled about the country as something extra, and asks if there is such a thing, and what are its qualities. There is both a white and yellow Aberdeen turnip, differing very little from each other, except in color. They were formerly cultivated to considerable extent, especially in England, but appear to have been supplanted by the Swedes. Seed of the yellow Aberdeen is on sale at the seed stores in this city, at 75 cents per pound, retail. We inquired for the white at two or three places, and was answered that it was not called for, and they had ceased to keep it. The Ashcroft, Swede, and Stubble turnip, and especially the White French, are vastly superior to the Aberdeen.

TURNIPS MAY YET BE SOWN.—It is not too late to sow Field Turnips in the first week in August and even later. We have known good crops made from seed put in as late as the first week in September. A few varieties are still offered by us. See another page.

Hay and Grain Caps.

In our last number, page 207, we described hay caps pretty fully, and gave directions for making, with original illustrations. We present herewith a second illustration, showing the caps in use, both for hay and for grain. We are not sure that they may not be considered quite as useful for grain as for hay. Many persons have called, and written, to inquire where they could be purchased ready made, but we could not reply to them, and our advice has been—make them yourselves. We have recently heard, however, that considerable quantities have been manufactured by Messrs. Chases & Fay, of Boston, who write in answer to a note from us, that they have not advertised them much this year, because the immediate home demand has consumed about all they could manufacture. They are making them of several sizes; No. 1—1½ yards square (sheeting), at 25 cents each; No. 2—50 inches square (drilling), 33 cents; No. 3—2 yards square (sheeting of two qualities), 38 cents and 50 cents, and of drillling 62 cents. These have metal eyelets in the corners, with pieces of string attached (a good idea). They also furnish, at an extra charge, iron skewers—some persons preferring them to wooden pins of home manufacture. They say "the cloth is put through a process which renders it unsusceptible of mildew, and better adapted to shed rain." This is, we think, hardly necessary or useful, for the cloth should be open to admit the passage of moisture, from the hay curing underneath. They write, that they have no more on hand this year, except No. 1, and No. 2 of the 50c. kind. Probably the market will be supplied with these useful implements next year, so that those not wishing to be at the trouble of making them can obtain them ready made, or have them manufactured to order.

Green Corn Fodder.

If the season, thus far, has been, or should continue to be so favorable to pasturage, as not to require the feeding of the corn sowed for feeding green to milch cows, it will be well to husband all of it for Winter forage. It will retain its saccharine and nutritious qualities until it gets into the ear, and should not be cut for Winter feeding until that time. The chief trouble is to cure it, as it requires several sunny days to dry, and then, bound in small bundles, to mow away in the barn. Indeed, it is difficult, under almost any circumstances, to cure it sufficiently to store away *by itself*, without heat or moulding. We would, therefore, recommend that it be packed away in layers of dry straw, or hay, which will receive its imparting dampness and flavor, and make such straw or hay partake of the odor of the corn itself. For calving cows, or lambing ewes in late Winter, or early Spring, this corn fodder, if tender and well cured, is a favorite food, promoting both flesh and milk.

If *stoutly* grown, it should be made fine in the cutting box, and lightly sprinkled with mill feed, or corn meal finely ground, thus affording a more easily digested food than if fed whole in the stalk or sheaf. Calves, and colts, and lambs, the first Winter after weaning, will live well upon it, and their improved appearance in the Spring will test its value as a forage. By all means, let the corn fodder, *of all kinds*, be saved—and that too, before it gets too ripe.

Moss-Covered Pasture Lands.

To the Editor of the American Agriculturist:

Having read your article on pasture lands, and their treatment, page 173, allow me to ask you a few questions, in regard to what is best to be done with a field, containing 32 acres. I was informed when I purchased the farm, that it had been plowed and seeded down, in timothy and red clover, six years ago. Now, up to this date, the grass is not above three inches high, and the field is all covered over with a russet-colored moss. The land is flat, and the soil a yellow-colored loam, and is allowed by all who have known it for years, to be good. Now what can be the cause of this falling off, or decay of the grass, after such a favorable Spring for that crop? I do not see in your remarks anything that directly bears upon it or other similar fields, which is my excuse for troubling you at present, for I, as well as others, am in want of information on the subject; and if you consider this a desperate case, what would you recommend to be done with it? Should it be plowed, manured and seeded over again, for grass, or allowed to remain another season as it is, or be turned into fallow and a crop taken off next year? I may here state, that the surface is quite free from stones, and that the land does not require draining. If you say crop it, what will be the best crop to take off it. W. H.

June 1st, 1858.

REMARKS—The "moss" in the above-named field is a bad sign, but not knowing, from personal observation, what is necessary to entirely satisfy us as to the difficulty, we will suggest: If he has manure enough (either street or common barn-yard) to give his field a thorough dressing, we recommend him to spread it on, and this Fall, say early in September, plow and put it into a crop of rye. Next Spring—in March, or early in April, sow on twelve quarts of timothy, and four quarts of red clover to the acre. If a quart of white clover, and two or three quarts of red-top be added, it will be all the better for pasture purposes. A good crop of rye may be thus obtained; the succeeding year a crop of hay, and pasture afterwards. Or, it may be be pastured at once, the next Spring after the rye is taken off. We would not pasture the young grass on the rye stubble the first year of sowing.

Home Made Poudrette.

There is a great annual loss of valuable manure at the rear of every house, which a little care would save. People have a prejudice against meddling with the contents of privy-vaults, which it is hard to overcome. If, however, the "temple" were properly built, the trouble could be easily got along with. The practice of digging a deep pit or cellar beneath it, which it is almost impossible to clean out, is a bad one; and the danger to the young children of a household, from such pits is not altogether imaginary.

A privy should be built so high above ground as to allow of a large, moveable box underneath it, of the same superficial dimensions as the building. This box should be made of pine plank, matched, and painted within and without, with coal-tar. It should rest on runners made of scantling, to which a horse can be attached, for the purpose of drawing it out when needful.

Of course, some means should be used to deodorize the offensive gases. Happily, this is not difficult. Dried muck, burnt sods, saw-dust, charcoal, chip-dirt, ashes, and indeed nearly all refuse dirt about one's premises will answer, provided it is dry. This last item, dryness, is important, to render the material a good absorbent. Lime is sometimes used, but not wisely, because it sets free and wastes the volatile gases in the air. It is an excellent plan to have at hand some of the absorbents we have mentioned, convenient for use. If they are not "handy" when wanted, they will seldom be used. Have some in old boxes or barrels by the side of the privy, under cover, where it can be drawn upon, daily, or every few days, throughout the year. If a small quantity is used often, all smells will be prevented and the combination of the several parts as compost will be more complete. When the box is filled, let it be hauled out to the barn-yard and emptied, and then returned to its place. On returning it, let the bottom be covered with a good layer of some absorbent. We understand that some of the companies engaged in manufacturing poudrette largely for sale, use a solution of copperas to deodorize night soil before they remove it to their manufacturing grounds. Of course, this could be used by any one who had not a sufficient quantity of absorbents.

Now that we are upon this subject, we will give some account of the manufacture of poudrette and Ta Feu, as it is conducted on a large scale, in the neighborhood of some of our cities. Certain persons are employed to collect the contents of privies, sinks and sewers, and to convey them by carts and by sloops to the premises devoted to the manufacture of this article. It is then thrown upon a screen having holes an inch square, which cleans out all coarse rubbish. Then it is spread on large platforms, where it is mixed with absorbents such as have been before mentioned, and then dried. "If it is to be manufactured into poudrette, it is taken into a house where it is allowed to undergo a partial decomposition, and again screened through a cross-barred, half-inch screen, and then barreled. If Ta Feu is to be

manufactured, it is *perfectly* dried, and when in that state, becomes cakey and hard, and is brought into the house, and without fermentation, is screened first through a half-inch screen, and then again through a quarter-inch screen." It is then ready for market.

This manure is recommended for all sorts of crops; though some persons find it less useful on wheat than any other. Mr. Downing esteemed it highly "for all the neater work of sowing and planting in gardens. For strawberries, for early vegetables, flower-beds, roses, &c., it is preferable to nearly every thing usually to be had; because, unlike guano, it enriches without burning, may be safely used with any plant, and brings no weeds, like common manure. We consider a barrel of it fully equal in fertilizing material to four cart-loads of stable manure."

These commendatory remarks apply as well to the *home-made* poudrette as to that bought in market, at so much a barrel.

Tanners' Waste and Wool for Manure.

To the Editor of the American Agriculturist:

There is one manure of which I have seen little notice, viz., the hair obtained at tanneries. Lime and salt are freely mixed with it *there*, and it necessarily becomes an active stimulant to the growth of vegetation. Living near to the city, I have gathered many loads of this hair and scattered it upon my land. I am now throwing it upon a piece of grass which I intend to plow in August for wheat and Spring crops. But many of my neighbors have asked me, "What *is* that?" and "is it good for anything?" I answer, "come and *see*." It has occurred to me, therefore, that many who live in the neighborhood of tanneries, are ignorant of the value of this manure, who, if their attention were called to the matter, would gather it up and mix it with their soil.

WM. CROCKER.

Buffalo, N. Y., June 10th., 1858.

REMARKS.—We have frequently recommended as valuable fertilizers, not only hair, but also what is called "tanners' waste," including the hair, fleshings, clippings and other refuse. All of these animal substances are excellent manures. Hair and wool are similar in composition. Not long since, an article was advertised in this journal, professing to be made of waste wool soaked in urine. Such a preparation must be very valuable. We did not call special attention to it then, because the samples we examined appeared to contain too much sand carelessly mixed in. Cleaned of this, it would be a very cheap manure at the price asked—$30 a tun.

Potatoes Mixing in the Hill.

To the Editor of the American Agriculturist:

In the June *Agriculturist* is an article under the above heading, in reply to which I wish to give an item in my experience. About 10 years ago I planted in my garden, some round blue potatoes, in conjunction with pinkeyes, so called, though there was scarcely any of the Pink to be seen about them.

On digging them, I found some of the pinkeyes had stripes of blue on them, one being nearly half covered with it. I carefully preserved this potato, and planted it the next Spring. On harvesting again in the Fall, I found some potatoes completely covered with blue. Not only was the color changed, but the shape was somewhat modified, being almost precisely like that of the long red, except the eyes were not so deep.

The flesh of this potato is pure white, mealy and delicious as any potato I ever ate, before they were affected by the disease, to which they are as little liable as any I ever raised.

In the light of the facts as above stated, what becomes of your philosophy in the article alluded to? That the mixing was produced through the "blossoms," I readily admit; but that the "seed balls" had any thing to do with it, I must ask permission to doubt, and even to deny. I see no more reason to doubt the idea of potatoes mixing in this way, that is through the blossom and down the stalk, then that corn should mix by a similar process. However this may be, your philosophy entirely fails to account for this case, although new varieties may and have often been produced as you described. I. S. MORRILL.

Lawrence, Mass.

REMARK.—We can not explain the particular instance referred to. The potatoes themselves, when first planted, may have been mongrels recently produced from mixed seed; or the second crop may have grown in part from a tuber or two of a former crop left in the ground. We are confident, however, that half-a-dozen kinds of potatoes planted in the same hill, would have no effect upon the product of each other. It is contrary to reason and general experience.

A Refreshing Rain.

Niagara River, July 12.

After a long and severe drouth, the vegetation parched and dull, the ground all cracked and ashy, what sensation so grateful to the farmer, the gardener, the business man, the mechanic, or laborer either, as a sight of the rolling up of the clouds, and the pouring out of a gentle, prolonged, delicious rain! So it has been with us, and now is at this present writing. Three weeks ago, the clouds, with their descending rains, which had been upon us for a month before, reluctantly scattered away, and left the sun with his genial warmth to shine upon and glorify the face of the earth in its luxuriant vegetation. It brought up the late planted seeds; it strengthened the attenuated grass, and Spring grains, and made solid and nutritious the previously watery and imperfect herbage, scarcely yet nutritious for the cattle; and with but a single slight shower a fortnight ago, the fierce heat continued until every creature gasped for breath, and vegetation itself gave unmistakable signs of suffering. Indeed, proceeding on the doctrine of extremes in this versatile climate of ours, we feared, that after such a flood would come a drouth, even of intensity, and between them both, our Summer's labors would be cut off, or suffer beyond remedy.

But, on the night of the 10th of July, the clouds gathered, and on the Sunday* morning succeeding, on waking, we found a delicious, gentle rain descending upon the thirsty earth, continuing in considerable showers throughout the day, and on Monday—now the 12th—still falling, to a thorough drenching of the soil, and a watering of the growing crops, equal to all their wants for some weeks to come. The young corn, potatoes, and buckwheat drink it in most gratefully, starting anew—the first two in their almost stoppage of growth, and bringing the last out of the ground, where its dry seeds lay unswollen and useless. All the garden vegetation has revived, and is shooting forth with unwonted vigor, and will give abundant yield. Our hay harvest is stopped for the moment, timely enough, for it was getting crisp and prematurely ripe in the meadows, and the undergrowth will be all the thicker and stouter for the renewed moisture. Thanks, then, to a kind Providence for such a delightful, replenishing rain.

We can now congratulate our brother farmers, and the country at large, on a good prospect in their Summer crops. Although the prolonged rains of the later Spring and early Summer had prevented the timely planting of the corn and potatoes, yet they got planted at last, and the genial weather since has brought them rapidly forward, and the present rain will push them to such extent, as nearly, if not quite overtake, by mid-August, their accustomed seasonable maturity. We have no fears, indeed, of the ultimate result in most of our crops, and rejoice thereat, equally with those who, in other event, would be the severest sufferers.

After all, we have compensations, more or less, in our seasons of distrust and calamity, more than we, at the moment, know of. When were our pastures ever more abundant, our stock in finer Summer condition, our barns so well filled with *last* year's forage, now Summering over, and such a superabundance of sustenance on the ground for our stock through another Winter! Never, to our own knowledge. And for all that let us be devoutly thankful!

Last Saturday, we lay gasping in the heated and parched atmosphere, wishing—*wishing*—WISHING—scarcely daring to *hope* that it would rain, and fearing the worst to the growing crops. To-day, on Monday, we look out in gladness at the drenched vegetation, and on the soaked land, with revived hopes and anticipations, and feel in our inmost heart that every intelligent creature will respond with us—how beautiful is the rain!

CROPS IN KENTUCKY.—Mrs. C. H. P., of Winchester, Clarke Co., Ky., adds to a business letter under date of July 13: We have *rain* this morning after a *drouth*; wheat all sound, though injured by rust; corn good; very little fruit of any kind; oats dead ripe. I had roasting ears July 6th from the King Philip corn you distributed. I pinched off the runners from my grape vines, leaving only two, and these have grown 10 to 12 feet already.

What is the Earth?—Answers.

"What is earth, sexton? A place to dig graves.—What is earth, rich man? A place to work slaves.—What is earth, graybeard? A place to grow old.—What is earth, miser? A place to dig gold.—What is earth, schoolboy? A place for my play.—What is earth, maiden? A place to be gay.—What is earth, seamstress? A place where I weep.—What is earth, sluggard A good place to sleep.—What is earth, soldier? A place for a battle.—What is earth, herdsman? A place to raise cattle.—What is earth, widow? A place of true sorrow.—What is earth, tradesman? I'll tell you to-morrow.—What is earth, sick man? 'Tis nothing to me.—What is earth, sailor? My home is the sea.—What is earth, statesman? A place to win fame.—What is earth, author? I'll write there my name.—What is earth, monarch? For my realm 'tis given.—What is earth, Christain? The gateway to heaven."

* This shower did not reach the vicinity of New York city until Tuesday noon, July 13, when it came down suddenly, and in great abundance, to the discomforture of the Publisher, and some hundreds of little folks, who were enjoying a splendid Sabbath School pic-nic in a grove, away from home. Didn't the little "ducks" enjoy the rain, though, notwithstanding the spoiling of much gay plumage? What a scampering for our carriages drawn by an iron horse, and how we all rejoiced to get home, and then look out and "see it pour down."

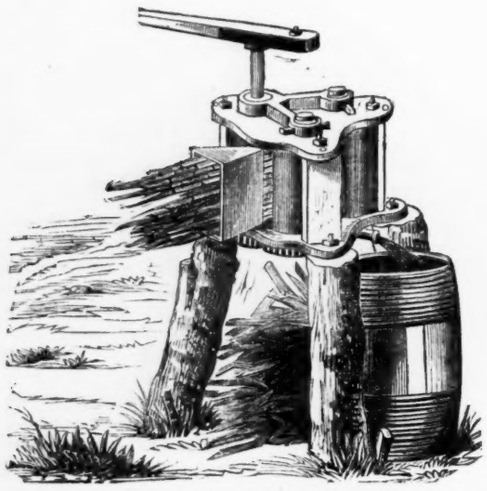


Fig. 1—VERTICAL SUGAR MILL.

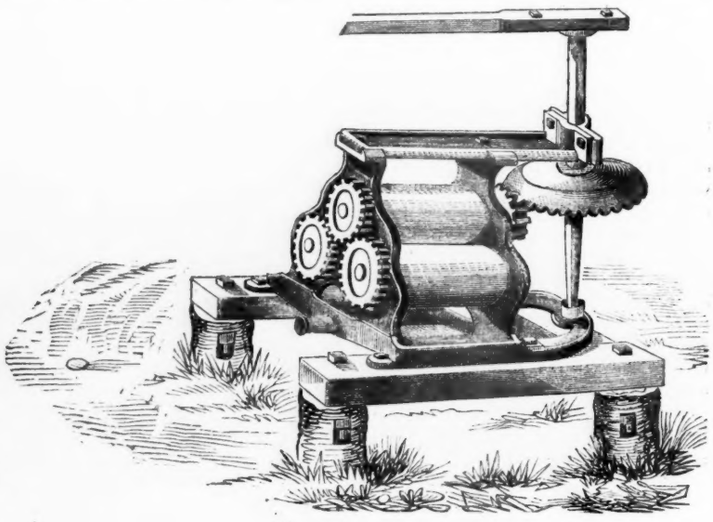


Fig. 2—HORIZONTAL SUGAR MILL.

Sugar Mills and Boiler Ranges.

Inquiries begin to come thickly upon us for information respecting the best apparatus for expressing the juice of the Chinese Sugar Cane. We expected, ere this, to have discussed this matter with Mr. E. Kelly, of New Brunswick, N. J., who got up some cheap, simple mills last year, for use in small operations, and who, some time since, proposed to manufacture them this year on a large as well as a small scale. We have not been able to see him lately, however. We present above, illustrations of two kinds of mills, one with vertical and the other with horizontal rollers, manufactured by Messrs. Hedges, Free, & Co., of Cincinnati.

Fig. 1 shows a three-roller vertical mill. Its construction is sufficiently plain without description. The rollers are iron, of course, and they are of various sizes. According to the manufacturers' card, "a one-horse mill of this form, weighing 600 lbs., is capable of expressing 30 to 50 gallons of juice per hour, and costs $56. One weighing 1,100 lbs. costing $100, is capable of expressing 60 to 80 gallons of juice per hour. One weighing 1,400 lbs., costing $135, is capable of expressing 80 to 100 gallons per hour." We give these as manufacturers' figures.

Fig 2 is a horizontal mill, which, though more expensive, is to be preferred for extended operations. The same firm name as the weight of these, 1,000 lbs. to 2,500 lbs.; capacity, 10 to 100 acres; cost, $125 to $600. Particulars can be obtained of the manufacturers. By next month, there will probably be a variety of mills advertised by different manufacturers.

FURNACE RANGE.

In fig. 3 we present a plan of a furnace for a range of boilers. The flat iron boilers, which set into the brickwork, are left out in order to show the mason work. Two kettles, or boilers, are set side by side, and at the end of these is a third kettle. The main fire is, of course, built in the front arch. This arrangement strikes us as a very convenient and perfect one. For this we are indebted to Messrs. Hedges & Free, of Cincinnati, who drew it up for the forthcoming Report of the Ohio State Board of Agriculture. The design and drawing are very creditable, and the arrangement is suggestive. We will here add a general remark upon the construction of boilers. They should always be so arranged that the fire will in no case reach as high upon the outside as the surface of the syrup on the inside. If the fire touches the kettle or boiler at or above the liquid within, it will surely be scorched and more or less injured in taste and color. The best arrangement is to have the sides entirely protected by brick-work. The thinner the kettles, and the brisker the fire, the better; that is, until the syrup is thick, when the heat is to be diminished.

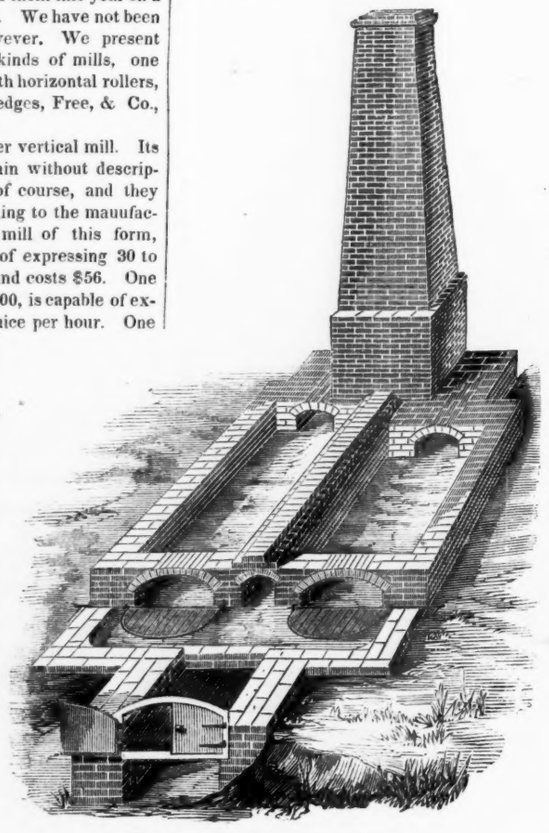


Fig. 3—RANGE OF SUGAR BOILERS.

Agricultural Humbug at Washington.

[*No. IV Continued from page* 199.]

[The article in our last, together with what follows, was written June 21. We have since seen a lengthy article in the Philadelphia North American, dated also June 21, and treating the subject very much as we have, only with more severity, as it doubtless deserves. We may, perhaps, give parts of that article hereafter. We have recently learned, from reliable sources, several new facts concerning the way things are managed in the Agricultural Department at Washington, which it will be useful to make public in due time. We may here add, also, that several correspondents, in different parts of the country, have sent us sundry statements concerning the private history of the Agricultural Clerk, whose antecedents the Commissioner of Patents has allowed himself to be made the instrument of setting forth to the public in such glowing colors, but we will say, to such correspondents, once for all, we have nothing to do with Mr. Brown's private or domestic affairs. We have only to do with him in his public transactions as connected with the Government Department, for the management of which he is really, though not nominally, responsible. As before remarked, we do not know Mr. Brown personally, have never seen him, nor had a word of correspondence with him on any topic, and therefore, in anything we may write, we are the farthest possible from aiming at him as an individual. We dislike controversy of any kind, especially one which may appear, even, to be personal; but our duty to our readers, to the interests of our common agriculture, does not permit us to ignore the doings of a Governmental Department in which we all have a common interest, and especially can we not pass over this recent attempt to silence the efforts making to purify and elevate to its proper position a Department which should be an ornament to our Nation, by thus making use of official position, of the public mails, and indirectly of the public press, to parade before the country an over-drawn coloring of

the past career of a government officer. Had this effort been one of private individuals, we should have been out of place in thus noticing it at length; but the whole affair being done by government officers—a Captain in the U. S. Army, a Congressional Committee, and a Head of a governmental Bureau—over their official signatures, and the franking privilege being made use of to carry on the scheme, the matter is a public one, open to public reply and criticism, and as such, we have taken it up. With these remarks we now give the closing part of the article put in type last month.]

The sixth and closing part of the Commissioner's extraordinary document, said to be "based upon authentic and reliable data" (by whom furnished?) is a befitting climax. We would like to copy it entire, but cannot afford the four or five columns of space that it would require. As the professed object of the narrative is to show the eminent fitness of an individual to fill an important public station, we may be allowed to briefly canvass the statements. The general impression left upon the mind after reading this personal history, is that, one who has pursued "everything by turns, and nothing long;" who has had a hand in some twenty different enterprizes in less than that number of years, can not possess that steadiness of purpose, that patience in investigation of details, that comprehensive judgment and thorough knowledge of any one subject—in short, that mental discipline, necessary to "eminently qualify" him to fill what is by far the most important station connected with the agricultural interests of our country.

To specify. According to the document before us, D. J. Browne left the paternal farm at 18, for a dairy farm, in Quincy, Mass. The next Spring he is in Newburyport "cultivating garden vegetables and seeds on a large scale;" then come seven years of miscellaneous studying, teaching and other pursuits; then editing a monthly publication for a brief period, at the same time "studying the Romanic languages" (how many of them?) and also "comparative anatomy under the distinguished Drs. Spurzheim and Warren." The next Winter he is on a cruise in a U. S. ship to the West Indies, Cuba and Florida Keys; the next September "on the peak of Teneriffe;" and so we might follow him from one place to another, now engaged in a railroad enterprize in Eastern Massachusetts; then on the Niagara river prospecting for a "Boston Timber Company;" soon after, in Dr. Jackson's laboratory in Boston; then back to Niagara; now an engineer on the Erie canal; then at Syracuse, N. Y., reporting to the Prussian Government on the U. S. railroads; now in N. Y. city preparing interest tables for bankers; now writing on currency, "tariffs and other subjects connected with political economy, for the Merchants' Magazine;" then at work upon the Atlantic dock; next in Cuba, making a railroad, and perfecting (?) a plan for a steam sugar mill; next, preparing his treatise on the Trees of America (see *en passant* the character of this work as shown up by the celebrated Dr. Gray and A. J. Downing); next, an engineer on a N. Hampshire railroad; then in a N.Y. agricultural warehouse for six years, attending to business, editing an agricultural paper, "preparing catalogues in several languages" (what ones and how many?), and carrying through the press several volumes (what ones?); next, in the Census office at Washington, and finally, "June 9, 1853, he took charge of the agricultural division of the Patent Office." Of the management of affairs in that office, this same document gives us a specimen in the first extract quoted last month, page 199; and, aside from that, farmers have had at least an inkling of matters, and some of them a little experience.

The document enlightens us on other matters. We give an extract or two to show the *hasty, superficial* method that appears to be pursued in all recent investigations connected with an agricultural department, where we ought to have thorough, careful investigation, if any where. Thus:

"....During an absence of only *nine* weeks, he traveled through portions of England and France, visiting several of the principal seed establishments of those countries, and obtained portraits of some of the best breeds of domestic animals, with a view of illustrating the Agricultural Reports, and a large quantity of valuable seeds, cuttings and tubers...."

Again: "....On his second mission he passed through England, France, Belgium, Holland, Prussia, Hanover, Hamburg, and a portion of the kingdom of Denmark, being absent seventy-seven days, having traveled during this fatiguing journey a thousand miles a week, visiting the principal gardens and agricultural establishments *en route*, and accomplishing the chief objects he had in view. Among those of interest which may be particularly noticed were his inspection of the "Exposition Universelle," at Paris, the "Bloemistries," or flower gardens, and Haarlem Lake, in Holland, and the celebrated nurseries of Messrs. Booth & Sons, at Flottbecks, in Holstein. He also submitted in person to Baron Von Humboldt, at Potsdam, a uniform plan for obtaining meteorological information as connected with agriculture in the various countries of the world, which, with slight modification, met his approval...."

The above account does not tell us how many of the "seventy-seven days" were spent in London; nor does it include the statement of Mr. Leonard Wray, concerning the negotiations respecting Imphee seed, and getting out a Patent for a sugar-making process—all of which may be produced, we presume, if called for.

We can not go into a detailed examination of the forty-odd enterprizes referred to in the document signed by Mr. Holt. We will allude to a single one, to show the extent and thoroughness of experiments made by the clerk of the Agricultural Department, and how safe(?) and general(?) are the conclusions to be drawn from the results. As one qualification of his fitness for his present post, we are informed that while engaged on the Niagara River for the Boston Timber Company, in the Spring, Summer and Autumn of 1837, he was

"....Experimenting with bone-earth taken from an ancient tumulus on Tonawanda Island, and testing its efficacy in the production of turnips...."

A gentleman cognizant of the facts, remarked on reading the above, that these experiments amounted to putting a few shovelfuls of bones, ashes and earth from one of the Indian mounds upon a small turnip plot in a garden, on a *new rich soil* where a good yield of turnips was of course obtained.

Insects at the Roots of Pea Vines.

To the Editor of the American Agriculturist:

My peas have been injured for two years past in a way never before witnessed by me. In the latter part of June the vines begin to turn yellow and the growth is arrested. On inspection the roots are found dead, or dying. As this was first noticed two years ago, in a short row of the "Early Champion," it was attributed to some peculiarity, either in that variety of pea, or in the soil of that locality. But it has since appeared in all parts of the garden, and in every variety. The vines are affected at every stage of growth—before the blossom, and after the pod is formed.

On careful inspection, I found that the injury commenced in the root, a little below the stem. A longitudinal portion of the skin, turned brown and lacerated, indicated that some worm had been at work. The injury apparently commenced immediately beneath the skin, extending eventually through the portions betweer it and the heart. An examination of a number of plants failed at first to bring into view the cause of the mischief, but on carefully opening an injured root of a plant giving the first indications of damage, and bringing a microscope to my aid, a minute worm of greenish white color was discovered, wriggling actively to put himself out of sight. Insignificant as the fellow is, I doubt not he is the cause of the mischief. The damage which he is doing this year is considerable. Now, *Mr. Agriculturist*, can you tell me and the rest of mankind how to deal with this pest? GARDEN.

REMARK.—We are not able to prescribe in this case. Investigation is needed, and we hope "Garden," and others will give the subject careful attention. There is a possibility that the vine may be diseased from some cause, depending upon soil or season, and that the insect referred to has only taken possession of the defective plant, though it is probable that the insect is the primary cause of the mischief. We have known pea vines similarly affected but have not looked for the insect described above.

Judicious Agricultural Premiums.

There are very good reasons for recommending the Managers of all agricultural and horticultural Societies, to pay as many of their premiums as possible in the form of subscriptions to some good Journal, devoted to the objects which the societies are aiming to promote. If this be done, thousands of persons will thus be led to *read*, and become better cultivators, and better citizens. They will be led to take greater interest in the advancement of soil culture, and will be more ready to assist in sustaining those enterprises intended to promote such an end; so that the Societies will, by this means, increase their own funds and usefulness.

Giving *books* as premiums, in part secures the same end, and these are preferable to *money* premiums; but a good journal, coming a dozen times a-year, and treating of a variety of topics, will, in most cases, be more likely to give satisfaction, by treating of some topic just adapted to the wants of the particular recipient, which is frequently not the case with a book on a specific subject. The frequent and continued visits of the periodical keep up an interest better than the single reception of a book which is read or glanced over, and then laid away, and perhaps forgotten. We think that twelve copies of the *Agriculturist*, for example, received at twelve different periods, would produce almost as good an effect as if an award of twelve books were made, one to be delivered monthly.

We were led into the above remarks, by having before us the announcements of several agricultural societies for the present year, in which periodicals form the majority of the premiums. The Chester Co. (Pa.) Agricultural Society, for example, offers *three hundred* different premiums, to be paid by a yearly subscription to some periodical named. We are thankful for the compliment paid to this journal, by offering so large a proportion of these premiums in copies of the *American Agriculturist*. The same thanks are due to numerous other societies, such as the Nemaha Co. Society, Nebraska; the Portage Co. Society, O.; Susquehanna Co. Society, Pa., &c.

To avoid even the appearance of "ax-grinding," we seldom refer to the above topic. We may here say, for ourselves, that we have no pecuniary interest in the matter, from the fact that the *Agriculturist* is now so widely circulated

among all classes of intelligent agricultural farmers and horticulturists—such as are most likely to be recipients of premiums at agricultural and horticultural exhibitions—that the giving of this journal, as a premium, usually results in no profit, to say the least, for we invariably furnish this paper below the regular (profit paying) subscription price, to societies offering it. The result is, that every year large numbers of persons are transferred from the regular lists to those from agricultural societies. Again: the actual cost of the *Agriculturist*, and amount of reading matter, is much greater in proportion to its subscription price, than that of any other similar journal, and we cannot, without actual loss, offer it to societies at so great an *apparent* discount as can others; and on this account we cannot enter into competition with other journals before some committees, who, having a dollar premium to bestow, for example, are often led to give that journal having a nominal subscription price of one dollar, which will be furnished to the society at the lowest price. Hence, when written to on the subject, we reply: "Here is the *Agriculturist*, which you can have at so much per year, which is the best we can do." On this point, however, we have no occasion to complain, as we believe the *Agriculturist*, though held at slightly higher rates, has been already more largely offered than any other similar journal, and we shall ever be ready to do what we can to forward the views of those who desire to place it on their premium lists.

Domesticities at Tim Bunker's.

Our readers have become so much interested in the affairs of Hookertown in general, and at Esquire Bunker's in particular, that we feel obliged to keep them "posted up" in current events thereabouts, even if not in all cases strictly agricultural. The Squire has been so busy with other engagements that he has failed to send us the usual letter for the month, but we chance to be prepared to fill the gap—not so well as he could do of course. We had fully intended to celebrate Independence day at Squire Bunker's, and since we have seen the bill of fare he had prepared, we regret more than ever that a pressure of business prevented our visit to Hookertown. Our German Edition, added to our other cares, has completely absorbed us, so that we have not had a moment to think of the clover fields and the hospitalities of old Connecticut. Esquire Bunker will please accept our apologies for this seeming neglect, and for anything defective he may find in the report of the occasion. The fact is, the young man we sent up there, had his head turned, (or rather his heart) by the Hookertown damsels, and came back nearer addled, than any fellow we have seen in a twelve-month. The whole report had such a tint of rose color, that we have reduced the tone full one-half, besides throwing out lots of poetry, that were more appropriate to the Knickerbocker, than to our matter of fact journal. Well here is

"OUR OWN REPORTER'S" REPORT—SOMEWHAT GARBLED.

Hookertown, Ct., July 5th, 1858.

MARRIED.

SLOCUM—BUNKER.—At Hookertown, Ct., on Saturday July 3rd, in the Congregational Meeting-house, by the Rev. Jacob Spooner, Rev. Josiah Slocum, of Shadtown, to Sally, eldest daughter of Timothy Bunker, Esq. of this place. A large loaf attests the fact to the printers.

The above slip from the Hookertown Gazette of this morning will indicate pretty clearly the character of the clover fields, your reporter was called upon to inspect. I must say, Mr. Editor, that I never was quite so much taken aback as upon last Saturday. I had supposed, from your instructions, that I was simply to inspect Esquire Bunker's improvements, and to report to the public how much allowance was to be made for the enthusiasm of your Hookertown correspondent. For every body understands, that these sober Connecticut people, when they are once waked up, and take to riding hobbies, are as apt to ride fast, as others. I had prepared myself to take notes upon extensive meadows, all blooming and ready for the scythe; upon under-draining, subsoil plowing, &c. I thought my Sunday dress was hardly needed in a short trip to the country, and so I came off in my every day toggery. Young John Bunker met me at the cars, according to agreement, and away we went up hill and down, for about six miles, after as handsome a pair of Black Hawk mares, as you can scare up in the pastures of Vermont. Horse breeding has received a new impulse in the State within a few years, and the annual exhibitions at the State Fair are hard to beat in any part of the Union. Gentlemen of ample means have taken hold of the business, and they spare no pains or money to secure the very best stock. John has a passion for horse flesh, as the readers of the Bunker papers are well aware. Though a lad of fifteen, he is about as mature and well posted on farm matter as the old gentleman himself. This team, which belonged to himself and Sally, were well broken to the saddle, and with a good road could do a mile inside of four minutes. We were just thirty five minutes coming over from the depot, and John said "he should have come much quicker but father told him not to drive fast."

When I reached here, I found the place all astir, and Esquire Bunker's lit up with such a glow of excitement as has not taken place since the horse-pond was cured. I supposed they were getting ready for the glorious fourth, which has to be celebrated this year a day behind time. But I soon learned that Miss Sally was a bride, and that Rev. Mr. Slocum, of Shadtown, was the fortunate individual, who was this day to lead her to the altar. The house and garden were full of the country lasses, the school-mates and more intimate friends of the bride, coming up to sympathize with her in her leave-taking of home, and in her departure for the parsonage of Shadtown. Wasn't your humble servant in a fix, to be caught in such a presence with his field dress of coarse linen on? Such a clover field as this was a good deal more than I had bargained for. I have seen something of beauty and womanly grace, as one has opportunity to see on the promenades and in the parlors of the metropolis, but I never met with a company so graceful and accomplished as were gathered to do honor to this occasion.

This country wedding has made clear to me, what I never understood before, the claim of this State to be called "*The land of Steady Habits.*" It was easy to see on very short acquaintance, the home influences, under which these daughters had come up—the thorough practical training they had received in the school room, as well as in the kitchen, and in the parlor. Probably the State is better furnished than any other with the means of education. In almost every important town, there is a good academy or high school, not only accessible to the daughters of farmers, but largely patronised by them. Here they go with their brothers, as soon as they leave the district school, to be drilled in many of the same studies with them—to emulate them in the natural sciences, in mathematics, and in the languages. The emulation is a healthful one, and the boys are generally put upon their mettle to keep out of the way of the girls. The embellishments of female education have this very substantial groundwork of *mental discipline*. It is claimed here, as sound doctrine, that a girl who studies geometry will make a better pudding, and sing a better song, than she possibly could if she knew nothing of Euclid; that Cicero and Sallust, German and Algebra, are only appropriate *discipline* for the wash-tub and for the cradle. Such a training gives breadth of mind to woman, and a strong, practical tendency to her maternal influence Children brought up under such home influences, with the usual religious training, cannot be otherwise than well balanced and steady.

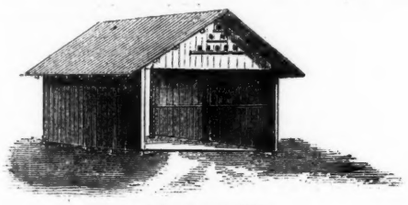
If you have imagined a company of simpering misses gathered at Sally Bunker's wedding, you are greatly mistaken. There was such a charm about their dress, that one hardly thought of it, and, for the life of me, I cannot tell now what any of them wore, save the fresh picked flowers, which so became them, that they seemed always to have grown there. The conversation was intelligent and pleasing, like that of most well-bred people. They entered fully into the spirit of the occasion, and were determined to "see Sally off" in good style. Not only were the parlors at Esq. Bunker's appropriately ornamented, but the pulpit in the meeting-house had been festooned with white roses, as if the sanctuary, as well as the minister, was to receive a bride. That is the way they do things out here. The minister's wife is married to the parish as well as her husband, and is as legitimately a subject of criticism and jealousy. She must do duty, fill her place, conduct prayer meetings, and be an ensample to the flock, as much as the shepherd himself. No one can quarrel with this demand, for it is a legitimate fruit of the system of female education. Woman fills a large sphere out here. She is a man, and something more. The vocation of "the Women's Rights orators" would be gone in Hookertown, and they would be set down as vain babblers.

Now, I shall not tell you of the wedding ceremony, which came off in the crowded church at eleven, A.M.; of the entertainment at Esquire Bunker's, got up, I suspect, as much for your benefit as for his daughter's; of the notabilities of Hookertown there assembled; of the agreeable things there said and done, touching agriculture, and culture of other kinds; of the dance got up by a few of the young folks very slyly, on a green patch of turf in the garden—an affair that was not laid down in the programme; and of divers other matters that would be appropriate to a work of fiction.

Suffice it to say, that the whole thing went off in the happiest manner, and the jollification of today, the firing of cannon and the snapping of fire-crackers, the shouting of the boys and the gala dresses of the girls, the holiday aspect of old and young, might be taken as a little outbreak of Hookertown enthusiasm at the marriage of Sally Bunker. At the next country wedding, may I be there to see. YOUR REPORTER.

DULL TOOLS.—Said one student to another, whom he caught swinging a scythe most lustily in a field of stout grass, "Frank, what makes you work for a living? A fellow with your talent and ability should not be caught engaged in hard labor. I mean to get *my* living by my wits." "Well, Bill, you can work with *duller* tools than I can," was the reply.

Merit begets emulation among the noble, but envy among the base.



CART AND WAGON SHED.

Farm Buildings....VI.

Cart and Wagon, or Rough Tool-Shed—Ash and Smoke House.

CART AND WAGON SHED, ETC.

This is a very necessary appendage to the farm, and should always have a place among the outer buildings. We give a cheap and convenient plan of one, such as we use on our own place, and will describe its construction. It stands on ten blocks, five on each side, set endwise, two feet in the ground, and a foot above the surface. The blocks are three feet long, altogether, and set sixteen feet apart, making the building sixty-four feet in length, and twenty feet in width. The blocks are flat on the top, and on each of them is erected a post, seven or eight feet high—as high as you want the upright part. These posts are connected at the top by cross *girts* of 3 x 10-inch joists, 20 feet long, which are spiked firmly on to the side of the posts. A series of other joists, of like size, are spiked on to hold the posts together longitudinally. Boards 16 feet long are then nailed lengthwise of the building, from the bottom to the top. The ends of these boards, of course, meet at the centers of the posts, which are 16 feet apart, as stated above. Thus you have a box nailed up on the side, and open at the ends. Then above the cross-girts put a set of upright posts, about 7 feet long besides the lower ends, which are halved into the cross girts, with a shoulder of an inch and a-half; that is, the joist cut half off on the flat side, the length of the width of the girt on which it is to rest, so as to form a good bearing. Let these run up as high as the peak of the proposed roof, not less than six, nor more than eight feet. Then, in the top of the posts, cut a *gain*—say six inches deep, and three inches wide. This done, set them up perpendicularly in the exact center of the building, and spike one of them firmly on to each of the girts. This line of posts, it will be seen, are to support pieces of scantling running the entire length, and laid into the gains, and thus form a ridge-pole. Then, place a *rafter* of scantling, or a pole from the woods, from the ridge-pole at its intersection with each of the roof posts, down to the top of the plates, which may be termed *principal* rafters. Indeed, these are the *only* rafters. Then, between the ridge-pole and plates on each side, run a line of *ribbing* half-way between the ridge-pole and plate, spiking it well on ; thus the roof is framed, and ready to receive the covering.

This covering we make of common pine boards, 16 feet long, and let them run over the sides 3 feet, so as to give a good shed of water beyond the sides. We gave ours upwards of one-third, or a 7-feet pitch, laying the boards lengthwise, and making a tight roof. The building then is finished by boarding the gable ends from the peak to girt, so far as a mere wagon shed is concerned. If, however, a vertical covering of the sides is preferred, like the one shown in the drawing, a line of girts can be inserted between the line of posts, on each side, half way up from the blocks on another line at the bottom, which will be a sufficient stay for holding the boards in the middle, as they are nailed on at the bottom and the top. Our plan shows three lines of rafter girts on each side, under the roof, instead of one line ; but the superfluous ones are only pieces thrown in for ornament—of little account any way. You have now only to drive your wagons, carts, or sleds underneath, unhitch, and leave them there out of storm and weather. If you prefer, double doors can be made and hung on the posts at each end, and the whole building is inclosed.

STORAGE LOFT.

The wagon-house being completed, scantling can be laid over the cross girts, to receive a floor, and various odd "traps," such as loose lumber and many other things, can be laid up there for storage, and by aid of a cheap step-ladder, through a trap-door, they can be reached at any time.

PIGEON ACCOMMODATION.

We have constructed a pigeon-house in the gable end of our shed, as shown in the cut, by simply laying a couple of scantling, 16 feet long, from the outer girt to the next inside one, and covering them with a floor, 6 feet wide, and 8 feet long, and then nailing boards on each side, from the floor to the roof, so as to keep out rats, and other vermin. At the inner end is a door, 6 feet long, and 2½ feet wide, hung on butts, and fastened with a padlock. This is reached by a moveable step-ladder. The room within is fitted up on the two sides with several tiers of boxes, 6 x 8 inches; each tier a foot above the other, commencing on the floor, as described more fully in our independent plan of a pigeon-house, given on page 201, last month.

COST.

The labor on ours cost sixteen dollars. The lumber, twelve dollars a thousand, on the ground. We put in plenty of 5-inch cut spikes, and tenpenny nails. It should be *well* spiked, and a few 6-inch spikes may be well appropriated in putting together the heaviest pieces. The whole cost of ours was a trifle less than $120. Shingles may be used for the roof, if preferred, but as it is a rough affair, any way, we used boards. The length may be such as your necessities require, but we would not have it less than twenty feet wide—allowing two wagons, carts, or sleds, to go in abreast.

AS A TOOL-SHED.

Wheelbarrows, plows, harrows, and all other farm tools may be stored there, likewise. These may be arranged along the sides, the lighter implements being hung upon hooks or spikes fastened to slats running lengthwise, or even driven into the outside wall. In the absence of a Workshop, like that described on page 169, June No., a work-bench might be placed upon one side of the wagon-shed floor, with a grindstone, &c., at the end. If these are allotted to this building, allowance must be made for them, in estimating the required width.

GRANARY.

A capital granary, or corn house, may be put in the chamber of this wagon-house, by extending the posts a few feet higher, so as to make a full upper story, and reach it with a swing step-ladder. Thus, two valuable objects will be attained under one roof, at a comparatively cheap cost.

ASH AND SMOKE HOUSE.

This is a very simple affair, and may be of any size required. The plan we give, is a stone or brick enclosure, 8 feet square, and four, five, or six feet high, according to the storage needed for ashes. A sheet-iron door, fourteen inches square, is inserted in the front, as shown in the engraving. A stone, or brick floor is laid over the bottom, and this constitutes the *Ash*-house.

A line of sills, six inches square, is laid on the top of the walls; a corresponding set of plates is raised 6 feet above them; then boarded up vertically, the boards either matched or battened A broad roof, either of boards or shingles, with a pitch of one-third—such being our general rule—is thrown over, with a small escape-pipe of boards inserted at the peak, to let out the smoke; a door at one end, and the *Smoke*-house is complete. Girts are to be laid across the plates inside, filled with hooks, on which to hang the meats, and the fire may be made in the ashes below, so that all is safe from burning. The ashes may be thrown in by way of the upper door, reached by a moveable step-ladder, and they can also be taken out through that or the small iron door below. The sills should be thoroughly anchored into the walls by irons, well secured, so as to keep it from blowing off during heavy winds.

ASH AND SMOKE-HOUSE.

It is not necessary to go into further detail in building this structure ; for, the plan once understood, it may be larger or smaller, cheap or expensive, more or less highly finished, as the proprietor may choose.

We need not go into the cost. Anybody who knows the price of the materials and labor, and has cyphered to the rule-of-three, can calculate it in an hour ; as value of materials, and labor differ in various parts of the country, an estimate here would be of little purpose.

We recommend our plan. We say that ashes should not be stored inside of the dwelling, nor in a wooden building at all. Nor should a smoke-house be within a dwelling, as it endangers the house by fire, and the smoke is apt to get into the rooms. We know of no better contrivance than to combine them into one, and set it a little way from the house, as the cheapest possible way to preserve the ashes, and cure the meats. The meats can remain all Summer, by occasionally making a little smoke, to prevent damage by the flies—the cheapest and least troublesome way of keeping them.

Keep a thing seven years and you will find a use for it. Sometimes the storage costs more than the use.

He who swears, shows that he distrusts his own word, and thinks others will do so, if he do not confirm it with an oath.

[Written in June, for July number—but crowded out.]

A Rainy Day.

"If it would but stop raining! Rain—*rain*—RAIN," says the nervous impatient farmer, the suburban gardener, and the country amateur. "Why, our crops and vegetables, and flowers, are all spindling up to nothing, and no sun to strengthen, and give them substance!" Well, good friends, that may all be so; but why complain? The rain falleth both on the just and unjust. Our seeds in the end took well, the growth of our plants is vigorous, and the harvest shall not fail, for which hopeful truth we have the highest authority. Your work may be getting behind—ours has been. The crops may spindle up out of due proportion, but all will come right ere long, and before the harvest has fairly set in, sunshine and heat will have done their office, and the Summer's growth will be garnered in its usual fullness and perfection. Of all these, therefore, take no heed for the morrow.

A rainy day, or a succession of them, we know hangs heavy on the hands of a man who loves his fields better than his house, barn, or workshop. But rainy weather need not be idle weather, even with him. Read, write, enjoy your friends, or do some in-door work. Recollect, meanwhile, that the clouds and rain, even when you think you have too much of them, are doing you more service than a score of hands under a fervid sun, or a pinching drouth. *Good* farmers rarely suffer from over abundant rains, unless on a river bottom with flooding waters. Ditches carry off the surplus, while the ammonia, which comes with the rain, fertilizes the earth, strengthens the plants, and prepares them for the genial warmth of the sun soon to follow.

For our part we love to sit in our porch and see the falling shower on the lifting grass, or the growing corn, be it wheat, or maize. How softly the vegetation drinks it in, and after it is over, it revives into renewed freshness and beauty! At such times we think upon the withering, continuous drouths which in other years, for weeks in succession have parched our pastures, and meadows, and grain fields; how our cattle and sheep have sweltered with heat under the almost crisp leaves of the trees which gave them no relief from the broiling sun. Day after day has the brassy sun risen and set without a cloud, and man and beast lay down exhausted, while the poor wilted crops, neither half grown, nor giving promise of ever filling for harvest, were almost as ready for the faggot as for the scythe, or sickle. Let us remember our days of privation, when a driving shower, or a continuous rain would bless millions of people and add millions to our stores, and be thankful that a superintending Providence, wiser than all mortals put together, is dealing blessings upon us that we little wot of in this hour of complaining.

Our readers may call this moralizing. Be it so. But we have little reason to find fault with the weather. We have extremes, we know. However, the present season has been on the whole, a good one. Our Spring was early, yet cool, with perhaps a surplus of rain, and not as unfavorable for seeding as many preceding ones. Our crops promise fairly. We shall, with present prospects, have full barns and granaries. Food will be abundant—labor plenty, and cheap enough. We have had our reverses, too, in past years. Extremes of the season have followed each other in the past three or four years, more than is their usual wont. They have raised prices almost to a famine scale, and depressed them to a non-producing point. We now hope for an equilibrium—a parallel of production and consumption which will give courage to the farmer, and confidence to his purchaser. A rainy day, or a succession of them may be profitably spent, at odd spells, cyphering out the various problems in political economy.

Observing Farmers.

It is hardly to be expected that all farmers will be able to write for the press, or to speak in public assemblies. With some, their early education has, perhaps, been so deficient as to forbid it; and with others, their incessant and toilsome labors make it almost impossible for them to give time and thought to such things. Every man who labors hard daily in any calling, knows that when night overtakes him his body is wearied, and his mind sympathizes with it and craves rest. And the difficulty of writing grows with the disuse of it. Hence it comes to pass that some of our best farmers seldom put pen to paper for the sake of writing agricultural essays. And it must be confessed, on the other hand, that some farmers who drive the quill for the papers, hold the plow with a very slack hand.

It is said that a certain eminent statesman of Pennsylvania, who wrote many valuable papers on agriculture, was often called upon by his admiring readers, expecting to see on his own lands a practical exemplification of his writings. What was their surprise to see gates with broken hinges, plows, harrows and hoes lying about in disorder, and barns and fences out of repair. They made bold to express their astonishment to the learned farmer, when his Honor replied:

"Why, gentlemen, do you expect me to write and work too!" And so, it can hardly be expected that practical farmers should do much in the way of writing for publication. Few men can do more than one thing thoroughly.

Yet, we think that farmers make too little use of stormy weather and of the leisure of Winter for reading and writing. What if they can not produce essays as learned as Liebig's, and polished as Macaulay's, they yet can contribute something valuable to the stock of human knowledge. Every intelligent farmer is an *observer*. He sees something, almost every day, that is worthy of putting on record for his own use, if not for the benefit of others. He learns something both by success and ill fortune, which ought not to be lost. Should not this habit of observation be cultivated? Would it not add much of interest to the routine of farm-life? And if all cannot prepare their notes of observation in finished style for the press, let them communicate their knowledge orally in Farmers' Clubs, and let them send extracts from their journals to the editors of agricultural papers, who would make good use of their observations.

And let us add in behalf of the editorial fraternity, that we always desire to have plain, straightforward details of practice. If well written, with the main facts stated in condensed, clear style, it is labor saved to us, but this is not essential. No matter how ungrammatically written, this is all straightened out before the type setters get hold of a letter, and errors in communications are known *only* to the editors.

A physician once advised Sydney Smith to "take a walk upon an empty stomach." "Whose stomach?" asked the wit.

"SEE-SAW."—"Well," said a carpenter, "of all the saws ever I saw, I never saw a saw saw as I saw that saw saw."

Mules and Hinnies.

If we should ask the youngest farmer on our list of subscribers, "What is a mule?" he would reply at once that, he is "a hybrid or cross, between the horse and the ass." And he would begin to look at our ears, as if the asking so simple a question indicated that we were akin to the last named animal. Yet it is not certain that everybody could answer our question; and fewer still could tell us that there are two distinct animals, both the progeny of the horse and ass, one of which is, and the other is not, a mule. The offspring of a male ass and female horse is the genuine *mule*. The offspring of a male horse (stallion) and a female ass is a *hinny*. The English word *hinny* is derived from the Latin verb *hinnio*, to neigh, which was used by the Romans to designate a point of difference between the two animals—the hinny *neighs* while the mule *brays*. Nor is this the only difference. The general appearance of the mule is like that of the ass, while the hinny more resembles the horse; and the temper of the two is likewise different.

The mule has long ears, like its sire, though a little shortened, out of respect to its dam. The mule has also a rope-like tail, with a tuft at the end; and a long head, (though not a very profound thinker); a thin thigh, erect frame, slender legs and hoofs, and the unmelodious voice of the sire.

The hinny has a smaller and better shaped head, flowing mane and tail, shorter hair, and larger frame, legs and feet than the mule. The hinny has also the voice of the horse.

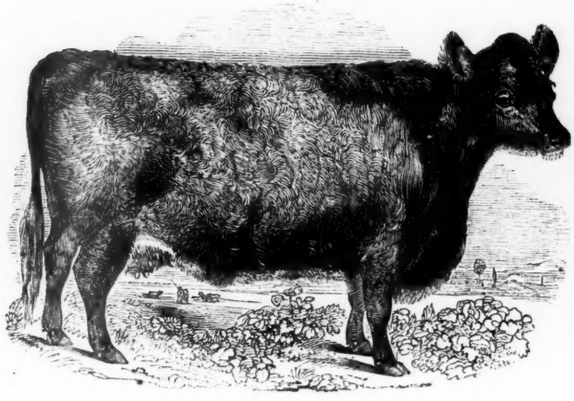
Considering the wonderful endurance of the mule, its comparative freedom from disease, and faculty of keeping in good condition on the cheapest food, we wonder that this animal is not more commonly used at the North for all kinds of farm and team-work. At the South, the mule is the common drudge. The hinny is hardier than the horse, more patient, and will bear harder usage, yet is inferior in these respects to the ass and mule.

The Foot of a Horse.

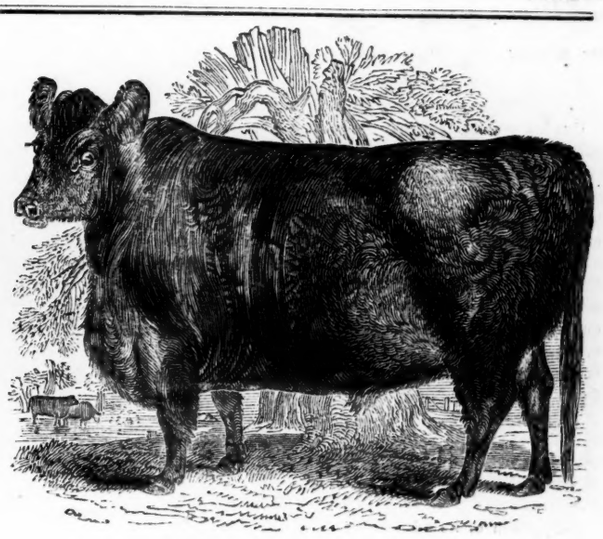
The human hand has often been taken to illustrate Divine wisdom—and very well. But have you ever examined your horse's foot? It is hardly less curious, in its way. Its parts are somewhat complicated, yet their design is simple and obvious. The hoof is not, as it appears to the careless eye, a mere solid lump of insensible bone, fastened to the leg by a joint. It is made up of a series of thin layers, or leaves of horn, about five hundred in number, nicely fitted to each other and forming a lining to the foot itself. Then there are as many more layers belonging to what is called the "coffin-bone," and fitted into this. These are elastic. Take a quire of paper, and insert the leaves, one by one, into those of another quire, and you will get some idea of the arrangement of these several layers. Now, the weight of the horse rests on as many elastic springs as there are layers in his four feet—about four thousand—and all this is contrived, not only for the easy conveyance of the horse's own body, but of human bodies, and whatever burdens may be laid upon him.

Good wheat sown never changes to cheat or tares; but "wild oats" sown in youth always does so.

Let rebukes always be soft words, with hard arguments.



GALLOWAY COW.



GALLOWAY OX IN GOOD CONDITION.

American Cattle....VI.

[*Continued from page* 205.]

THE GALLOWAY.

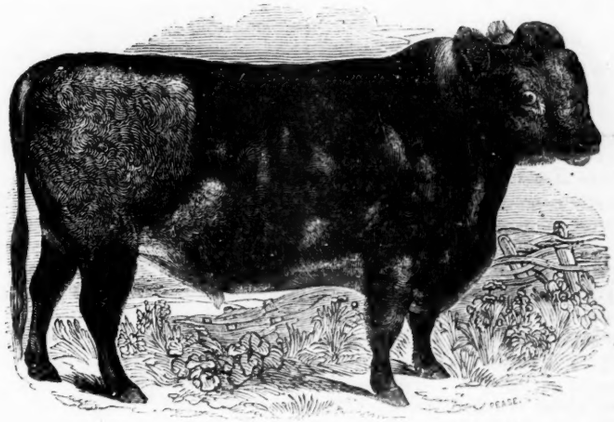
This breed of cattle is so entirely distinct from any other with which we have been familiar, and has been so recently introduced into America, that it is perhaps too early to speak of them; yet, as a considerable number of them have, within two or three years past, been imported into Canada, in the immediate neighborhood of our own State, and are likely to be bred to a considerable extent, they may properly be enumerated among those foreign breeds with which we may shortly become identified in the stocking of our farms.

They are claimed to be an aboriginal breed in Scotland, and for centuries have been an important portion of the wealth of the hardy peasantry who inhabited the mountains, glens, and moors of that interesting country. Wild and uncultivated as were their native ranges, and the people who bred and owned them, they existed in their own natural condition, living through the vicissitudes of prosperity and adversity, as the state of the seasons or the circumstances of their owners might determine. But with the advancing husbandry of Scotland, the condition and appearance of its cattle have improved, and the Galloways, once wild, semi-savage, and comparatively worthless, have become a valuable, docile, and highly esteemed race of neat stock. For centuries past they were bred among the hills, and at the age of three or four years, driven into England, in great numbers, where they were bought up by the farmers, and grazed and fed off for market.

About the year 1786, according to Youatt, Lord Daer, son to the Earl of Selkirk, energetically undertook to improve the breed of Galloway cattle by a course of nice breeding, and good care. Dying soon after, his example was followed by his younger brother—afterwards succeeding to the Earldom—who, in the course of a few generations raised his cattle to a high standard of quality and excellence. This spirited example was readily imitated by many influential landholders who possessed them, and from a mean and common brute, the Galloway assumed a position of importance as a grazing beast which had never been before acknowledged. And so this breed still remains in Scotland. Several small herds are now in Upper Canada, where they are much liked by their partial owners, and breeders. They are rapidly multiplying, and even in the absence of importations into our own ports, they may soon make their way over the Canadian line and find congenial homes among the choice stock of farmers in the States.

DESCRIPTION.

We shall not go much into this. They are mostly black in color—occasionally red, brindled, or dun. In size they are medium. Formerly they were small, but have been grown larger by care and cultivation. They are *polled*, or hornless; compact in figure, full and round in the carcase; short on the leg, with fine bone—elastic in touch, and covered with a thick coat of soft, long, wavy hair. We have seen perhaps fifty of them—mostly imported animals, and their produce—all of the best quality; and to our eye they appear a valuable race of cattle, for grazing purposes—and that is all which is claimed for them. The cuts which we insert will convey a good idea of their appearance.



GALLOWAY BULL.

AS A MILKING COW.

The Scotchman who breeds her will tell you that she *is* a milker. So she is, so far as rearing her calf goes; but as that virtue is not given to her as a dairy cow, in Scotland, we need not claim it here. The heifer calf is usually spayed, at home, and turned out with the steers to graze, and fatten. The portrait of the cow shows little indication of proneness to flow off her secretions in milk.

AS A BEEF PRODUCING OX

The Galloway holds a high rank in Britain. He is reared on the scanty pastures of Scotland, and fed off in the rich meadows, and turnip folds of England. His beef brings the highest price in market, next to the Highland Scot, and holds rank with the Devon. He ripens early—at four years old. We give his portrait—look at him.

THE GALLOWAY'S PLACE IN AMERICA.

The high hills, and mountain ranges of our northern, middle, and southern States—we believe—will ultimately be divided between the Galloway and the Devon, or cattle inheriting largely their blood. In the grand subdivisions of agricultural labor which have ultimately got to be adopted here, as in populous countries abroad, we must adapt uses to means. When that time arrives, we shall find the policy of supplying every variety of our soils with the best possible stock to yield profitable returns on each; and the sooner we set about it, the more it will be to our advantage. In our hopeful anticipations, we believe the Galloway cattle will yet become a valuable, and permanently established race among us.

The Hay Crop.

ITS QUALITY THIS YEAR—SALTING HAY—MIXING STRAW WITH HAY.

Our hay cutting this year is late, and from its extraordinary rank growth in the month of June, considerable portions of it may be overgrown, and washy—that is, lacking substance, and nutritious quality. Grass thus rankly grown should stand longer, to fully mature its sap, and fit it for substantial fodder, than when equally grown under fitting alternations of sunshine and rain. Especial care is required to examine that it be thoroughly cured—not *dried*—before going into mow or stack, as, without such precaution, much that is apparently cured on the outer surface, is still damp and green within.

Many hay cutters have a fancy for salting it as it is thrown into the mow or stack, and the expediency or benefit of thus using salt is still an undecided question with many excellent farmers. We have tried salting, but we confess, with no decided opinion of its advantages. Two, or three, or even four quarts on a ton appears a small dose to preserve hay too damp to keep otherwise. As to any good to cattle to daily partake of salt with hay, even if so thoroughly distributed through as to affect it alike, we have some doubts, believing by long experience that a tablespoonful or so of salt, once in a week or fortnight, is all that a full grown ox or cow requires, and that it is, perhaps, better so fed, than if with their daily food.

Those who are putting up hay for their own use, and have old clean straw on hand, if their hay be imperfectly cured, can profitably intermix layers of straw with the hay, when thrown into the mow or stack, thus preventing mold. The straw absorbs the superfluous moisture, and it also gets a flavor from the grass, thus making the straw a palatable fodder. We have practiced this with *decided advantage*, and commend it strongly.

We have also found rank water-grown hay, like that of this season, less kindly to cure in the winrow, or cock, as recommended in our last number, than that of ordinary seasons. Spreading, therefore, that which is hand-mown should be looked after. In such a season as this, particularly, the benefit of the mowing machine, in this regard, is apparent.

Shade Trees in Pastures.

BY A LOVER OF THE FARM.

I confess to a very warm love for trees. I love them in the forest, stretching their tall trunks towards heaven; I love them on the lawn, affording a welcome shade from "Summer's noontide ray," when, wearied with toil, I return from the field; and I also love noble trees, scattered here and there over the farm, grown in the majestic symmetry of nature, in whose refreshing shade our grandsires sat and looked over the scenes of hard-won, but bloodless victories gained over the stubborn soil. Generations of cattle have reposed contentedly in this shade, and what sweeter picture of rural repose can there be than when looking over broad fields, we see the flocks taking refuge from a Summer's sun, under the wide-spreading boughs of some ancient elm, oak, or maple. And yet we are told that this is all wrong; that all those grand old trees which (thanks be to their sense of the beautiful) our fathers left standing when they felled the mighty forest, must all be leveled to the earth, leaving but an unsightly stump as a monument of departed glory; and horse or ox, with no retreat from the burning rays of a Summer's sun, forced to wander in agony over the field, eating, perhaps, because he does not know what else to do. I don't wish harm to any one, but I would like to see the Hon. Mr. D., who was the first to mount this hobby, laid out in the sun some July day, when heaven and earth seemed filled with fire, and if he did not soon wish for some of those trees he sent his foreman to cut down, I would yield the point. But seriously, are we to have no eye for the beautiful? Is the almighty dollar always to bound our vision? If we plant our lawns with trees, and endeavor to show our taste in their arrangement, why not carry out the same plan over all the farm? We often admire the stately proportions of an oak, an elm, or a maple, at a distance, more than close at hand, because we can then take in their whole beauty of proportion at a glance. No, farmers; do not, as you see your flocks and herds begin to seek the cooling shade, in the leafy month of June, sally forth, ax in hand, and fell to the earth your beautiful trees. I am one of those who believe, that the stomach of an ox requires rest as well as that of a man, and that man might as well cram himself from morning till night, as to require it of his dumb beast. Indeed, when we consider the system of the ox, that he eats quickly, and that a period of repose is absolutely necessary, that he may chew it over again, the idea of compelling him to stuff himself continually is simply ridiculous. Thus would I say to the grazier, spare the trees.

White Daisies.

The prevalence of white daisies on a farm is generally considered a sign of bad management. But let us not be too fast in our denunciation of this weed, or of the farmers who do not exterminate it. Sheep relish it highly, and though horses and cattle turn away from it while green, they take to it kindly when made into hay. Then, there are certain dry, sandy soils, where Timothy and clover grow with difficulty, and suffer in time of drouth, but on which the daisy flourishes well. Now, if the owner of such land has not the means or the time to enrich it all at once, why should he not make the best of the case, and let the daisy have the largest liberty? As to allowing the plants to go to seed, and scatter over the neighboring lands, we give no such advice.

If one desires it, and really sets about it, the daisy is not difficult to eradicate. Turn in a flock of sheep, in Spring, upon a field infested with it, and after they have cropped it quite short, break up the land and devote it to a heavy crop of oats, and the daisies will almost disappear. Or, give the ground a good manuring and devote it to meadow, and the luxuriant grass will choke it out. Or, raising any hoed crop upon the land will answer the same purpose.

Quack or Couch Grass.—(*Triticum repens.*)

This vegetable production has about as many lives as a cat. So tenacious is it of existence, that some farmers have given up beat by it. Instead of trying to extirpate it, they make the best of it and turn it into hay. That it makes good and nutritious food for stock, if well cured, no one can deny. But it is a pest to the land, and every thrifty farmer ought to regard it so, and fight it to the end. On low, soft lands, which can not be well tilled, it may, perhaps, be suffered to remain, if it has got firm possession, but on no other. For it spreads like contagion, and years of hard labor may be necessary to subdue it. On light, rich soils, it luxuriates and bids defiance to everything but the most toilsome and persevering efforts to eradicate it. Gardeners sometimes resort to the expedient of covering with boards any portion of their ground that may have become infested. This operation continued for a year goes far toward suffocating and killing the plants. The loss of one year's crop on the soil so covered, is a small item compared with the gain of clearing the land. If the covering is continued for two years, the eradication becomes complete. Salt, applied in large quantities, will subdue quack; but on deep soils, where the roots penetrate far, the amount of salt required would make the remedy very expensive, and perhaps injure the soil for other crops.

Probably, the best way of all is, to plow deep, harrow finely, and then with a rake and a pair of hands gather up the roots which are brought to the surface. Go over the ground a second time with a three-toothed cultivator, and then use the rake and hands as before. Every root should, of course, be carried off from the ground and burned.

About Weeds.

Do you ask where the weeds are? Sorry to say, in your plowed fields, your meadows and pastures, and garden. See! right in plain sight, in yonder pasture, thistles flourish bravely, both the native American and the foreigner, mulleins, docks, white daisies, Johnswort and what not. Havn't time to grub them up? Perhaps you havn't time to exterminate them all, root and branch, in one year; but you can make a beginning on them. Every farmer ought to feel a little ashamed, or at least uneasy, if he is not gaining some headway against this invading army. He ought to be able to say, at the end of every season, that he owns more *free* territory than he did at the beginning. And if he can not root out all the weeds in one year, or two years, he ought to exterminate some of them, and to let none go to seed.

Did you ever stop and think what gross feeders these invaders are? They carry off annually a great amount of nourishment which ought to have been saved for the benefit of your wheat, corn, potatoes, and the like. Thirty or forty dollars worth is annually lost on some farms that we know of. Lost, and worse than lost! How these farmers would murmur against Providence, if a flood, or hail-storm, or drouth, caused them a loss of half that amount! But they take the damage from their own carelessness very quietly.

Now, let us speak a word in season. Grub up at once, the roots of every weed you can find time for; and if you can not kill all, *be sure to prevent their ripening seed.* Set that down as a rule never to be violated. Now, in this very month of August, when every growing thing is hastening to maturity, make an onslaught upon the barbarians. Heap high your trophies on the battle-field; and ere long, fire them, and offer them up as a sacrifice to CERES. It'll please the old heathen mightily.

To Kill Ferns and Brakes.

Most varieties can be subdued by mowing them in June and in September, regularly for two or three years. Let no one be disheartened, because they do not succumb at once. Every year's mowing will weaken them, and they will give up the unequal contest at last. The sort called bog-brake must have its crown hacked off with a bog-hoe. Rake off the tops, and burn, or compost.

Food for Chickens—Varieties, &c.

To the Editor of the American Agriculturist:

I noticed in a former number an article headed "Spring Chickens." My experience has taught me exactly the opposite of what your correspondent says, in regard to feeding young chickens on "soaked bread," and afterwards on "Indian meal well cooked." I prefer to feed them on coarse-ground corn, or "mill screenings," and giving them plenty of fresh water. Experience has taught me, that the "gapes," a disease by which many chickens die in this part of the country, is a small worm which is in the "craw" of the chicken when it is hatched. By feeding the chicken on "soaked bread," it nurtures the worm, till it grows large and tries to get out of the chicken, thereby choking it.

I prefer the "Black Spanish" crossed with the common fowl. I never keep a chicken that has not golden colored legs and bill.

J. Heron Foster, Jr.

Allegany Co., Pa.

Gapes in Chickens.

To the Editor of the American Agriculturist:

I have heard of many, but know of only *one* way to cure gapes in chickens. They are caused by lice. Chickens of lousy hens invariably have the gapes. The lice deposit nits on the down, upon the heads of young chickens, which as they hatch, crawl into the nose, and so to the wind-pipe, and become worms. My remedy is to grease the young chickens, when first hatched, about the head and wings. I also grease the hen to destroy the lice upon her. If the operation is repeated in two weeks, I will guarantee that not one chick in a hundred will die of gapes.

W. M'Comas.

Harford Co., Md.

Remarks—The remedy may be a good one, but we differ from our correspondent as to the *cause* of the disease.

Diarrhea in Calves and Pigs.

To the Readers of the American Agriculturist:

White oak-bark tea is the very best remedy for this disease, which often affects young calves and pigs raised on gruel. Remove the ross or outer bark, with a drawing knife, and boil the inner bark until it has the appearance of strong coffee. Give two or three tablespoonfulls each morning until there is a change. Omit it for a day or two, and only give more when it does not appear sufficiently checked. It is also an excellent wash for sore shoulders on horses and oxen. Rub the affected parts freely with it, and if your own hands are tender or sore they will be benefited by the application.

G. T. Shanck.

Cecil Co., Md.

The Slaughter which Daily Sustains Us.—When we ride, we sit upon the skin of the pig; when we walk we tread upon the skin of the bullock; we wear the skin of the kid upon our hands, and the fleece of the sheep upon our backs. More than half the world are human beings in sheep's clothing. We eat the flesh of some creatures, of some we drink the milk, upon others we are dependant for the cultivation of the soil; and if it is a pain to us to suffer hunger and cold, we should be scrupulous to avoid inflicting wanton misery upon the animals by means of which we are warmed and fed.

Patience is a plaster for all sores.

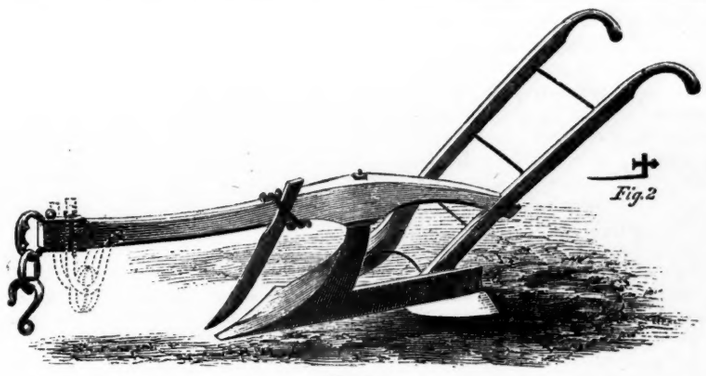


Fig. 2

Fig. 1.

Stenton's Land-side Cutter for Plows.

We present, in fig. 1, an illustration of a very simple attachment for the land-side of plows, for which great advantages are claimed. This consists of a horizontal steel *coulter*, having an upright shoulder, which is attached to the land-side of any common plow by short bolts and screws. Fig. 2 is a section of the coulter with the bolt to fasten it to the plow. The engravings show the mode of attachment sufficiently plain to render further description needless. As the plow moves forward the coulter cuts underneath the next furrow for a distance of 3, 4, or 5 inches, according to its width. Those of different sizes may be attached to the same plow.

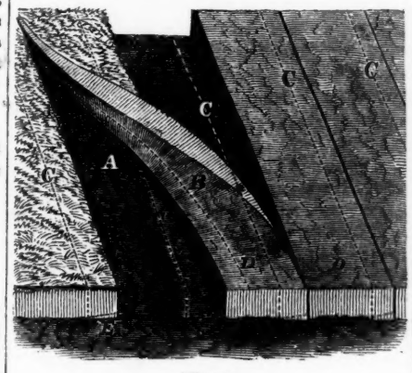


Fig. 3.

Fig. 3 shows a section of ground plowed. *A*, is the place of the plow; *B*, a furrow slice being turned; *D, D*, the width cut by the ordinary plow; *C, C*, the portion of the overturned furrow under which the land-side attachment passed. At *E* is shown the path of the coulter.

Among the special advantages claimed from this arrangement are: that it brings the cutting edge of the base of the plow upon both sides of the beam, and thus equalizes and even diminishes the draft; that the plow rests on a broader base, and therefore runs much steadier, requiring less holding; and that the loosening of the outer edge of the furrow, by the cutter having passed under it, enables the same plow to turn neatly over a much wider furrow slice.

We have not yet seen a plow at work with one of these attachments, but we can readily conceive that the above advantages may result from its use. The only point of objection we can imagine, is, that in particular instances the furrow might slide sidewise instead of turning over, if its outer edge should be loosened too far underneath. The inventor states that this is not the result in practice. The apparatus is simple, cheap, and capable of attachment to any ordinary plow by drilling a couple of holes in its land-side. Particulars as to price, &c., can be learned from the advertising columns.

Observing Bee-Hives—Correction.

In our June number we gave directions for making hives for observation. A single error in the type requires correction. On page 171, in the first line of the middle column, the types make us say ⅛, when we wrote ½. Those who are constructing hives should note this, as of considerable importance.

If an after swarm is treated in the way we there described, and the queen has her wings clipped to prevent her elopement, the eggs she lays will produce only drones; and from these of course no new queen can be procured in case of her subsequent removal. We thought, however, that the experiment in this form would not lack interest.

Notes on Honey-Bees.

To the Editor of the American Agriculturist.

The habits and peculiarities of the honey-bee are very interesting to me, and I will state a few facts that have fallen under my observation:

In the fall of 1835 my father took a "*gum*," or section of a hollow tree, containing a strong stock of bees, and placed it with the bees in a square box that would hold eight or ten bushels. They soon formed a large mass of comb on the outside of the gum, but of course inside the box. They *never swarmed* but made a great deal of honey which was removed yearly. In the Spring of 1857, twenty-two years after they were placed in the box, my brother and myself took the gum out and placed it on a stand close to the ground, as Mr. Quinby directs. They cast a large swarm the same season. But they have not done well this year, and about a month ago, we drove the old stock out of the quarters they had occupied for twenty-five years. Now these bees are fully one third smaller in size than bees in young stocks adjoining. The old brood-combs were black as tar, and the cells diminished in capacity at least one-third. Does not this prove that bees degenerate in size if old brood-combs are used?

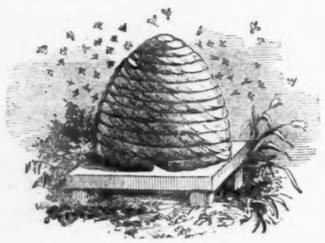
Quinby and other writers think that it is very unusual for swarms to go off without clustering, and they doubtless narrate their experience truly. But bees often decamp here without ceremony. Only a few days since a stock belonging to my brother cast a swarm, and before the last of the swarm was out of the hive, the vanguard was a hundred yards off; and despite of throwing water

among them they very deliberately proceeded about a mile to a large poplar tree into which they entered. We cut the tree down and secured the swarm which is now doing well. A large number of swarms are lost in this vicinity every year by going off without clustering. Is there no remedy?

Another query and I have done. A neighbor of mine has five stocks, varying in age from one to three years. They are all strong healthy stocks; three of them have already cast swarms and the other two will swarm in a few days. In all, except one, vigorous piping was heard before the *first* swarm issued, and in one of the *swarms* which has been out four days, I last evening heard the queen piping when I was twenty feet from the hive. The first swarms were not kept back by bad weather. Now this is altogether different from what I was led to expect from reading works on bee-culture. Will Mr. Quinby, or any of your correspondents explain? I am comparatively a tyro in such matters and seek information.

S. C. MENDENHALL.

Frazeysburg, Muskingum Co., O., July 1st, 1858.



Wonders of the Bee Hive....XIV.

The body of the honey-bee is wonderfully fitted for the work it is expected to perform, and the most minute examination with a powerful lens, reveals new wonders in connection with its structure. We present in Fig. 21 a magnified view of the *proboscis*, with which all the honey is collected from the flowers that yield it. If our readers can find a bee on a flower, or still better, if they can coax one to help itself to a piece of candy or a drop of liquid honey, they will see a long flexible trunk, somewhat like an elephant's, (though not so large,) let down from the mouth where it was concealed before, and rubbed over the sweet object like a camel's hair pencil. This is the proboscis, whose parts are represented in fig. 21. To the eye, it seems to be a single instrument, and yet by a careful examination of a dead bee it will be found capable of separation into several parts, five of which are easily distinguished and are grouped together like one's fingers. These are all of a rich brown color, or horn-like, and of course will not be confounded with the two black *antennæ*, which stand out on each side of the head.

In the figure, we are supposed to be looking at the head of the bee as it is turned over on its back, and the joints of the proboscis are rather unnaturally extended for exhibition. The five parts spoken of are represented by *a*, *a*, *e*, *e*, *m*. Of these, *a*, *a*, indicate the first pair of joints, about as large as hairs, partly membraneous, and partly of a substance between horn and bone, covered to some extent with fine hairs. The veins running through them are air tubes. These joints fold down upon the proboscis, *m*, and by their motions draw the honey up through its channel toward the head.

In *e*, *e*, we have the next pair of joints, much like the first, which, however, have at their upper extremities, three articulations, *f*, *g*. These do not fold upon *m*, like *a*, *a*, but project a little outwardly, and are supposed to open the way for the proboscis, as it is penetrating the nectary of the flowers. Swammerdam compares them to the fore-feet of a mole, pushing the earth aside both ways, as it burrows in the ground.

The middle part, or the true proboscis, appears at *m*. It is surrounded by hairs, and at the very extremity, *o*, has a small opening also guarded by hairs. There is either a tube or a channel running through this part of the trunk, which is alternately enlarged and contracted by some muscular apparatus while the honey is ascending. Between *m* and *e* is another pair of joints, *h*, *h*, shorter than the others, and not so easily recognized by the eye. At *l*, we have the gullet cut off, on either side of which are the articulations that connect the whole with the head, while *q*, *q*, represent very black, but shining joints that form a sheath protecting and concealing the proboscis when it is not in use. We do not consider the illustration a very satisfactory one, but with the explanation given we hope our readers will be better able to examine for themselves the living object.

The proboscis of the honey-bee is not long enough to penetrate some flowers which are rich in sweets. It is unable, for example, to get any supplies from the red clover, whose blossoms, as every boy knows, are so sweet to the taste. The humble-bee has the advantage of it in this respect. It is said, however, that the honey-bee sometimes bites a hole in the flower of the common Fuchsia, and of the Dielytra Spectabilis, in order to get at the tempting stores which there invite it.

The honey, after being drawn up by the proboscis, passes at once to the honey-bag, which is situated in the abdomen of the bee. On returning to the hive, the bee can throw it out again into the cells, or can feed any bees that ask for it, as it enters. The honey-bag, when distented with honey, is translucent; if the bee has been fed in the house and then fires against a window where there is a strong light, the fullness and transparency of its body are quite noticeable

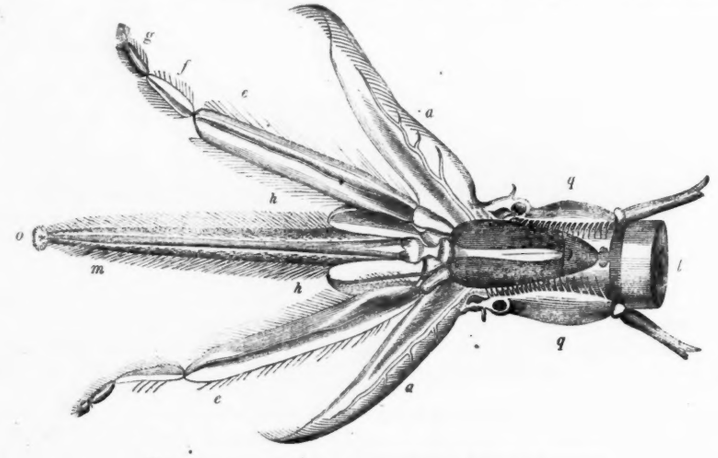


Fig. 21—PROBOSCIS OF A WORKER-BEE, GREATLY MAGNIFIED.

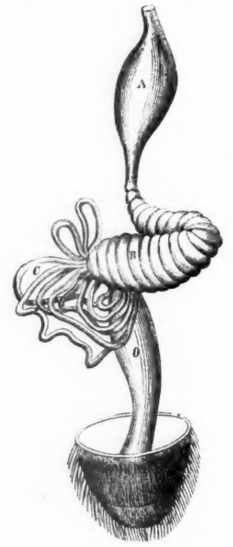


Fig. 22.

Fig. 22 represents the stomach and digestive organs of this insect. *A* is the honey-bag, as large as a pea, which is filled through a slender tube extending from the mouth. From this the food passes into the stomach *B*, and thence into the folds of the intestines *C*, and through the larger intestine *O*, to its termination in the lower segment of the body.

There is room yet for much research and patient study of the laws of life and reproduction in this remarkable insect, but it needs to be done by the careful anatomist and philosopher. The results will be profitable to the apiarian. We have now given views of the ovaries, the sting, the proboscis, and the digestive organs, all of which contribute to our purpose of illustrating "The Wonders of the Bee-Hive."

A BLUE-BIRD IN A BOTTLE.—The West Roxbury Gazette, (Mass.) gives the following item: "One of our neighbors happening to have a large bottle, bethought himself of placing it in the branches of a tree near his house, for the birds to build in if they would. After a short time the members of his family perceived a pair of blue birds continually, day after day, flying about and coming up to the mouth of the bottle, as if endeavoring to get in. After this had lasted about a week, the gentleman took a hammer up to the tree to knock off the neck of the bottle, so that the bird might enter, when upon doing so a blue-bird flew out. The poor prisoner had undoubtedly succeeded in making his way in, but from the slippery ascent to the mouth had been unable to escape, and had probably been supported by food brought there by his outside brethren."

How Plants and Animals Grow.

Let us begin by saying a few words about the germ of life in both plants and animals. There is a germ of the chicken in the egg, which is quickened into life by the agency of heat and air. This new life is sustained by nourishment found immediately around it, within the shell. By the time it has exhausted this food, the chick is ready to burst the shell, and to seek its nourishment elsewhere. So the germ of the plant is within the coats of the seed, and it is quickened into life by the action of heat and air. It has a store of food provided for it in the seed itself, until it is able to strike its roots into the soil, and gather nourishment from other sources. In the quickening, both of the animal and the vegetable germ, *light* must be excluded.

Animals and vegetables live upon animal and vegetable food, yet in both cases this food must go through a preparatory process before it will sustain life and nourish growth. In both cases, if solid it must be rendered soluble. In the case of the plant, this transformation takes place in the soil. Under the influence of heat, air and moisture, decomposition progresses so far, as to break up and render solvent the solid matter, and fit it to be taken up by the plant. This food is imbibed by the spongioles, the fine hair-like fibers of the extremities of the roots, and by them is carried through the body of the plant into the leaves, where it is elaborated into nutrition, fitted to build up the various parts of the growing plant—as bark, root, flower, fruit, &c. A like preparatory process goes on in the stomach and lungs of the animal. The gastric juices of the stomach act upon the crude food, breaking down its cells and rendering it solvent. The lacteals (little tubes opening into the intestines) then take it up and carry it to the blood; this conveys it to the lungs, and into every part of the body, during which process it is elaborated into the nourishing elements of flesh, bones, muscles, &c.

Plants and animals both breathe, and cannot live without breathing. The air which the animal inhales, gives up a part of the oxygen to the blood, which it meets in the lungs, and the blood sends off a part of its carbon at the same time in exchange. In this way the blood is fitted to become living animal matter. So the leaves are the lungs of the plant and the sap its blood. The sap brought in contact with the air in the leaves, gives off oxygen, and imbibes carbon, and so is fitted to become living vegetable matter. Destroy the lungs in either case, and the great vital processes of life are arrested, and death ensues.

Digestion, in the case of animals, requires a high degree of temperature in the stomach, between 90° and 100°. Decomposition of the food on which vegetables subsist, goes on most actively in a high temperature, and ceases below 40°. Hence it is, that vegetable growth is suspended by the cold of Winter.

Vegetables, as well as animals, may eat too much, and too rich food. Both, when in an enfeebled state, require but little, and that in a diluted form. If fed at any time, on too concentrated food, or with an excess of it, the spongioles of the plant and the lacteals of the body become clogged, and unable to take up and transmit the nourishment through the several structures to which they belong. There is, however, a beautiful law prevailing in both cases, by which they may throw off, through certain excretory organs, such foreign matters mixed with their food, as they do not require, or which may be uncongenial.

Facts like the foregoing would be interesting, merely as matters of information, even though they were of no practical utility; but they are of use. If the germ in the seed is quickened into life only in certain conditions, care must be taken that those conditions be provided. The seed must be placed where it will have the requisite air, heat and moisture—not too deep in the ground, nor too near the surface. Both the plant and the animal must be supplied with food in such a state that it can be easily digested. The plant needs even more care than the animal, for it is stationary, and cannot go abroad for food. As plants need to breathe, we see the folly of stripping grape-vines, or other plants, of their leaves in Summer, in order to ripen their fruit.

The Yellow Locust.

Considering the value of this tree for many purposes, we wonder that it is not more largely cultivated. It is a useful timber for railroad sleepers, fence-posts, wheel-hubs, and in ship-building. It is almost as enduring as the red cedar. For the Western prairies, where the farmer wishes to get shelter for his crops and buildings in the shortest possible time, this is, unquestionably, an excellent tree to plant. Indeed, as we are happy to know, it is already being planted largely in several of the Western States. Railway companies are lining their roads with it, both for the sake of shelter from the winds, and to furnish "ties" for their tracks.

It is a peculiarity of this tree, that though a rapid grower, and therefore an enormous feeder, it yet enriches the soil beneath it, probably by its large annual deposit of leaves. Grass grows very luxuriant beneath its shade. This tree may be rapidly propagated by seed harrowed into the soil, or by planting young trees, which will spread in all directions by suckers. Half barren pastures, and hill-sides useless for tillage, might be made much more profitable than they now are, by devoting them to groves of locust. Lands of this description have already been made to yield timber worth one hundred dollars an acre.

Are Cleared Lands More Subject to Drouth than Others?

To the Editor of the American Agriculturist:

The writer has often read, in articles which have appeared in the agricultural papers touching the bad effects of cutting away our native forests, that where so cut away, the land becomes more subject to drouth than before. We fancy such theory can only apply to the fact that clearing away the forests and opening the land to cultivation, gives a freer passage to the water, as it falls or collects in various bodies, as swales, swamps, springs, &c., and passes it off into the larger channels; for we do not see how the simple fact that trees, averaging not over eighty feet high, can attract larger bodies of water through the clouds thousands of feet above them, than the surface of the earth could do without trees. The face of the country, we believe, has much more to do with it. Hilly and mountainous countries in the temperate zones, are usually more showery than plains; and whether the hills be bare or forested, appears to make no difference. The natural laws of atmosphere, climate, evaporation, winds, and the locality of bodies of water, we imagine to be controlling causes in the falling of rains, or the occurrence of drouths.

We are led to these observations by the immense rains of the present season, which have fallen all over our Western States, almost with the violence and continuance of a deluge; and the vast prairies, stretching for thousands of miles in extent, seem to have had, if any thing, the worst of it. There are no mountains there—the Alleghanies being the most western range, east of the Mississippi—and none more for a thousand miles beyond it. Nor is the country even hilly; but one immense champain of level and rolling, timber and prairie, faring about alike in each and every year with rain or drouth.

We have a good many weather wise-acres in the land, and many meteorological tables have been kept; but we confess, with all our investigations, we have as yet been unable to work out any conclusive problem to guide or regulate our judgment in atmospheric phenomena, other than the barometer and thermometer; the one giving us only a day or two's indication of what weather may come, and the other telling the fact as it is at the moment.

There is no sort of regularity, year by year, to our American climate, except in the revolution of the seasons. OBSERVER.

Care of the Lawn.

During the heats of Mid-Summer, there is danger lest the lawn be neglected. Other cares now press, and the long-continued heat of the sun has browned up the grass so that its beauty does not reward the pains bestowed, as it did in Spring.

Nevertheless, do not neglect the lawn. Mow it once in ten days or a fortnight, according to the growth of the grass, roll it after every mowing, and if you have a garden engine or other means of irrigation at command, fail not to give the grass the benefit of it every few days. It is better to give it a good, thorough soaking down to the lowest roots, once a week, than to just sprinkle the leaves every day. If any thistles, white daisies or other weeds creep into your turf, dig them up at once. If any spots look bare and sterile, scatter over them some old, finely pulverized compost, and rake it in. The first rain will carry its soluble properties down to the roots of the starving grasses.

Don't neglect the flower-beds cut out in the turf. Unless you are on the alert, the roots of the grass will creep into the rich soil of these beds. Trim out the edges, every few weeks, with a sharp spade, preserving the outlines of the original figures with much care. Lighten up the soil of the beds with a forked hoe, and rake them off smoothly. Such trailing plants as verbenas should be pegged to the ground, and others, as lantanas, geraniums &c., should be kept tied to neat stakes. Let slovenliness be banished from your premises—from the lawn, especially—and let neatness and order everywhere appear.

Some would-be gardeners have an annual horticultural "fit," in the Spring, when they buzz around like so many bees, making a great flurry with roots and seeds. "What splendid gardens we shall have this Summer! Won't *this* be exquisite, and *that* be charming!" And so they rhapsodise for a few weeks, and make sober people around them uncomfortable. But the "fit" passes off by the first of June, or thereabouts, and their gardens grow up to weeds. Not so with the true horticulturist. He has such an inborn, hearty love of Nature, that his zeal knows little abatement throughout the season. In the midst of dog-days, he may become tired *in* his garden, but not *of* it. His trees, shrubs and plants, both useful and ornamental, never suffer from neglect, and his premises in their several parts are always in order. We number not a few such gardeners among our readers.

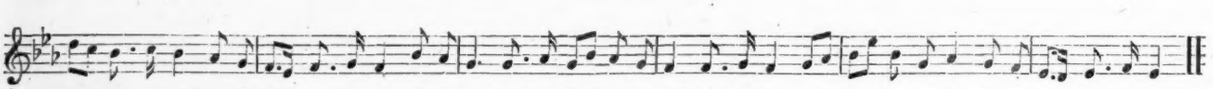
THE GREEN LANES OF ENGLAND.

AIR—"Balance a Straw."

Moderately Slow, and with Expression.

1. Thro' the green lanes of Eng - land, the long sum-mer day, We wan - dered at will in our youth's mer-ry May; We gath - ered the blooms o'er the
2. But the green lanes of Eng - land, tho' dear to us then, Were dear - er by far when we grew to be men; When the heart's first e-mo - tions were
3. Ye..... green lanes of Eng - land, wher-ev - er we roam, Ye are linked in our hearts with the mem'-ries of home, With the sports of our child-hood, the

hedge - rows that hung, Or mocked the sweet song that the night-in - gale sung. In the au - tumn we knew Where the black - ber - ries grew, And the
fer - vent and pure, And the world had no grief that a smile could not cure. 'Twas be-neath the green leaves, In the calm sum-mer eves, That we
love of our prime, And the pen - sive de - lights of a so - ber - er time. Oth - er lands may be fair, With their balm - breathing air, And their



shy haz - el - nuts hid-den deep in the shade; Or with shouting and cheer, When the Christmas drew near, In search of the ripe rud-dy hol - ly we strayed.
breathed the young hopes in our bo - soms that burned; Or in love's gen - tle eyes Read the ten - der re - plies, That showed the fond pas-sion as fond - ly re-turned.
beau - ties and gran-deurs that charm or ap - pal; But to young and to old, Till our hearts shall grow cold, Shall the green lanes of England be dear - er than all.

The Green Lanes of England.

We recently saw in a copy of the London Illustrated News a print like that on the opposite page, and believing it would interest our readers we laid it aside until a convenient opportunity should offer to have it engraved and inserted in the *Agriculturist*. We have nothing on hand more appropriate to this torrid month than the refreshing shade presented in the engraving. The picture speaks for itself, and needs no description. The beautiful words and plaintive air accompanying, we thought too good to be omitted.....We have in store many pleasant sketches, which we shall engrave and present to our readers from time to time, when not over-stocked with original designs. We see no reason why the *Agriculturist*, while mainly devoted to practical labors, should not also give some of the more pleasant things which will interest and elevate the feelings of those who are engaged in rural occupations. We hope to combine in this journal the largest amount of useful information, together with much that shall tend to refine and elevate the taste of its readers.

Don't Neglect the Grape Vines.

If our readers have given heed to our monthly hints on this subject, they have already begun the Summer pruning of their grapes. They have rubbed off the superfluous shoots which often spring from a single joint, leaving only one to grow, and that the strongest. And as numerous rampant suckers have sprung up around the stump of the vine, they have pulled them off, unless it so happened that they wanted a new shoot or two to supply the place of some defective branches. At present, then, their vines are not a mass of wild, ungoverned foliage, but the canes are just numerous enough, and so laid in as to well cover the trellis, and yet afford light and air to the leaves and fruit.

As the berries attain to the size of large shot, remember to pinch off the shoots two or three joints beyond the fruit. This will check the flow of sap and the formation of unnecessary wood, and will throw the forces of the vine into the clusters. After a little while, the buds below will push again. Let them grow an inch or two, and then give them a second pinching, and even a third, if necessary. By the time this last application has been made, growth will cease, and the grapes will begin to ripen.

If it is your object to get the greatest possible number of grapes, let the clusters all grow, large and small. But if you wish to grow only the best possible fruit, then take off the smaller clusters, here and there, all over the vine, and the clusters remaining will get all the food they need to develop themselves handsomely. It may cost you a slight struggle to throw away so many bunches; but if you mean to surprise your friends next September and October, with some splendid fruit, or if it is your ambition to carry off the prizes at the approaching Fairs, then don't hesitate between quantity and quality. And further, after you have fixed upon a lot of superior clusters in different parts of the vines, go over them carefully with the sharp-pointed scissors made for the purpose, and nip out all the small or diseased berries, so that those remaining can swell to larger and more uniform size. If you are a bungler, you will prick some of the fairest and best berries, and do more harm than good. After the grapes have begun to color, do not handle them, as you will thereby rub off the *bloom* from the fruit, which is one of their chief attractions.

The Orchard....VII.

THE PLUM.

Where it can be grown in perfection, this is one of our best Summer and early Autumn fruits, the several varieties yielding us luxurious treats for four or five weeks in succession. Its beauty of form and color, as well as its high flavor in taste, makes it exceedingly ornamental as a table fruit, while its various uses in the culinary department, both fresh and dried, make it a valuable article in the household economy. *Good* plums exist in numerous varieties; and many, and perhaps the best of them are of American origin, well suited to the soils and climates from which they sprung. This fruit, however, as a class, is capricious in its selections of soil and position, and, as a rule, flourishes in few places as compared with the apple, and other general fruits.

The plum is a native of all our climates, from the St. Lawrence to the Savannah rivers—in different varieties—but the Middle States are its most acceptable locality. Wild varieties, however, grow spontaneously in every one of the United States; but as they are of limited use, and varying excellence, we cannot well number them among those usually propagated in nurseries and gardens, and to be recommended for cultivation. Therefore we do not notice the wild fruits further than in the passing remark, that they may be cultivated wherever they will thrive, and the better varieties refuse to yield their fruits.

SOIL AND POSITION.

The *very best* soil for the cultivated plum is a heavy clay loam, on a dry bottom. Lighter soils will give them good growth, but a shorter-lived tree, and less certain bearing. We have seen them in all varieties of soil, but we know no plum orchards which are reliable in continuous yields, high flavor of fruit and full health of tree, except on the clays. There seems to be an affinity of the wood and foliage of the plum to heavy soils, which is absent when connected with more open soils—the heavier soil giving a healthier existence, a more vigorous growth, and a greater longevity, as well as more constant bearing. Certain localities are remarkable for their affinities to the plum. For example: The valleys of the Hudson and its tributaries above Poughkeepsie, in New-York State, are remarkable for the fine growth and constant bearing of their plum trees. There, disease seldom attacks them, the finest varieties have originated thereabouts, and while in many other widely extended districts they utterly fail, or but seldom produce, they there continue to flourish in unabated vigor and fruitfulness. The curculio and black knot, their worst enemies, seldom affect them, while, in other places, their ravages either cut off the annual crops, or destroy the tree altogether.

The quality of the soil need not be excessively rich to grow them. Any well-conditioned garden ground is rich enough; but, like other fruit trees, they require open culture, and freedom from grass and weeds. Thus treated, with moderate pruning, if they thrive at all, they will fulfill all their duty to the cultivator. Indeed, we have seen them, where they had a favorable locality, do wonders in annual crops—even under neglect and abuse, such as many other varieties of fruit would refuse altogether, so hardy and constant is their general nature.

PLANTING AND CULTIVATION.

Sixteen to twenty feet apart is the proper distance for a plum orchard. The planting should be the same as with other fruit trees, and the after-cultivation similar. When inclined to bear in full luxuriance, the chief difficulty to be surmounted is overbearing. No other fruit tree bears so excessively, at times, as the plum; and when so inclined, the fruit should be early thinned to save the branches, which, being a brittle wood, incline to break, unless supported by stakes or crutches. In short, the plum tree wants watching and attention for a successful result in its fruit.

VARIETIES.

These are many, and as we before observed, the most successful, and the best in flavor are of domestic origin—with the exception of the *true* Green Gage, which is of French origin, and exceedingly difficult to produce *here* in perfection. That variety has been long among us, and given birth to many sub-varieties, none of which equal the parent in exquisite flavor, but they are still among the best we cultivate. The choicest, indeed, hold strong relation to the true Green Gage, although, both in color, size, and flavor, they sometimes partake more of the characteristics of other original varieties which have contributed, in a degree, to their parentage. Many of these sub-varieties, more or less require the soils and localities from which they originally sprung—some of them being refractory and almost worthless when removed to other distant localities, while others are placable and kind in their production. As with most other fruits, however, the choicest kinds are the least reliable, both in growth and crop, like the Jefferson, for example, which is a direct seedling from the Green Gage, and is rarely cultivated with success at all out of the vicinity of Albany, the place of its origin.

Among the select varieties, we consider the Smith's Orleans the best of the *blue* plums, being large in fruit, delicious in flavor, a hardy tree, and full and constant in bearing. Among the *yellow* varieties, are the Bleecker's, Prince's and Imperial Gage, and, best of all, the Washington Among the *reds* and *purples* are the Red and Purple Gages, and the Lombard. Added to these are many others of local or wide-spread celebrity, which are, more or less, known among the plum-growers, or found in the books, from which a choice can be made, as the taste or fancy of amateurs or orchardists may select.

As a market fruit, however, the most profitable, as well as reliable, the several sub-varieties of the common blue, or horse plum, take precedence. Among these is the Frost, a kind much cultivated along the Hudson River; small, and late, and fine for preserves and drying. All these, usually seedlings, or suckers from the roots of other trees, are easily propagated, hardy in growth, and abundant bearers. *Choice* plums, as a market fruit, are so perishable, and chiefly wanted for immediate use or drying, that, in any quantity, they will bring little more in price than the coarser ones, and, unless under very favorable circumstances, can scarcely be recommended for that purpose.

DRYING PLUMS FOR MARKET.

Where they flourish with certainty, the common plum can be made a profitable crop by gathering them just before fully ripe, and drying them in kilns or ovens made for that purpose. They thus become a domestic "prune," equal in quality to the foreign article so well known among the shopkeepers, and freely consumed in our larger towns and cities. A tightly built room of a few feet square, with a stove in it, and racks resting on cleats upon the walls, put up in the simplest manner, receives the fruit. They are dried in a day or two, and can be bagged and hung up for family use, or market, at pleasure. Many farmers drive a profitable item of business in that line,

and turn their plum orchards to good account when distant from a ready market for the fresh fruit.

DISEASES.

The plum is subject to two formidable, almost fatal enemies—which, more than all other impediments put together, forbid its cultivation and cut off its crops—the *curculio* and the *black-knot*. The curculio is an insect. The *cause* of the black-knot *may* be an insect also, for it is not yet altogether understood; but the disease, whatever be the cause, is a bulging excrescence upon the branches of the tree, causing barrenness in bearing, and the final death of the tree itself.

It cannot be expected that, in an article like this, we can go into the various prescribed remedies against either of the above scourges, as scores of nostrums—scarce one of which has been found decidedly effectual—have been offered. They have, for many years past, been discussed in our fruit books, agricultural and horticultural papers, and journals, with, as yet, no positive solution. In our own experience, fifteen or twenty years ago we could grow plums by scores of bushels every year, with as much certainty as apples; but for the last dozen years we could scarcely grow as many quarts, with now and then an exception, even on a good plum soil. Yet there are large plum growers in occasional parts of the country, who say they *never saw* a curculio, or suffered from its ravages; and the black-knot does not trouble them! The circumstances of the plum grower must therefore determine his abandonment of, or perseverance in their culture.

To such, however, as intend to grow the plum for their own pleasure, irrespective of the impediments that may combat their efforts, we can only recommend them to the careful study of our current publications, and the proper books which treat upon the subject. They *may* succeed against the most formidable pests to which the fruit is prone to be attacked, and if not repelled at too much cost, will find abundant satisfaction as the reward of their labor.

Raising Fruit Trees from Seed.

M. M. Ferguson, Williamson Co., Texas, and several other inquirers, who write that they live remote from nurseries, will not find it difficult to raise their own trees. The main thing necessary is to have access to a few trees of desirable kinds to obtain grafts or buds from. Another difficulty in newly settled countries is to get suitable seeds for starting. Sometimes it is necessary to obtain them from seedsmen or others at a distance, but as a general thing it is desirable to take them direct from the fruit itself, if possible.

Collect the seeds of the various kinds of fruits when fully ripe, separate from the pulp or flesh, and put in boxes of earth at once; or they may be put in the ground immediately. With many of them, especially the stone fruits, to allow them to become thoroughly dry before planting, is nearly equivalent to destroying them, as they seldom vegetate. Where, from any cause, they become somewhat dry, and fail to vegetate the following Spring, it is better to leave them undisturbed another year, as they frequently sprout the second season. Seeds placed in boxes in the Summer and Fall should be exposed to sun and rain until late in the Fall, and even watered during dry weather. There is danger of too much wet and frequent freezing and thawing when left exposed during the Winter. A shed or dry cellar is a good situation for them till Spring. It is immaterial whether they freeze at all—they certainly should not freeze and thaw frequently. Plant them out thickly in beds in *early* Spring, covering the same as corn. We have often cracked the peach pits in the Spring, planting the kernel only, but they will usually burst themselves unless they have become too dry. The after culture consists in keeping down weeds and the ground loose, for one, and sometimes two years, when they are transplanted into rows some three to three-and-a-half feet apart and eight to ten inches in the row, for grafting or budding with approved varieties. Having heretofore described these processes we omit them now.

The Peach grows very rapidly and is frequently ready for budding during the first season, and may be transplanted into the orchard at the end of the second year. Apples, pears, plums and cherries, are usually budded when two years old, and set in the orchard two years afterwards The practice of most tree growers is to bud or graft their trees close to the ground, when one or two years old; but it is a question with others whether it is not better to allow them to form a trunk, and either graft four or five feet from the ground, or perhaps better, graft the branches, saving the body of the seedling as a more *natural* and healthy stock. Our series of articles on the Orchard has valuable suggestions upon this and other topics, connected with fruit growing.

Management of Young Trees in Summer.

One reason, undoubtedly, why many trees fail the first season after transplanting is, that their roots were not mudded on being sent out from the nursery. Every nurseryman should keep a barrel or puddle of mud, in constant readiness for coating over the roots of trees which are to be moved any distance, and are in danger of becoming dry in the transportation. This coating not only preserves the moisture of the roots while out of the ground, but also helps to form an immediate contact between the soil and the roots when they are set out. Where this mudding or "puddling" has been neglected, it is important, in planting, to press the fine soil among all the fibres, and to fill up every cavity. Indeed, this should always be done. It is not enough to shovel in the dirt over the roots and tread it down with the foot. Get down on your knees, and work the soil into every interstice with your fingers. Are you too rheumatic, or have you too stiff a backbone for such work? then bring a pail of water and dash it on the roots when the hole is about half-filled, to wash in the earth, and then put in the rest of the soil.

But it sometimes happens that trees, however well planted, suffer from drouth in Summer. Watering them is only a temporary relief, and it often does as much harm as good. Thrown upon the top of the ground, only a little penetrates to the roots, and the surface soon becomes baked into a hard crust, which no moderate rain nor any dew can soften. If watering is resorted to—and it is sometimes necessary—the surface soil should be removed with a hoe, and a pail or half a pail of water poured into the cavity at the end of the roots, and then the top soil returned to its place. The roots are thereby refreshed, and the earth above them is kept mellow. But instead of repeating such waterings, we would mulch the soil around each tree with tan-bark or sawdust, or leaves, with a few stones to keep them in place. The strawy portion of the manure-heap is a good mulch, imparting richness about the roots as the rain washes in the manure. Be sure that the mulching extends as far as the extremities of the roots. A good cultivator once said that, in his experience, the best *mulcher* was a long-pronged *hoe*, by which he kept the soil about his trees clean and mellow. Perhaps he was right; but most farmers cannot find time to cultivate their trees so carefully; and for such, a good mulching, such as we have mentioned, is the best thing they can do.

To Make Fruit Trees Bear.

Some pear-trees which make a rapid growth of wood, are yet very slow in yielding fruit. The Autumn Bergamot is one of this class, often growing steadily for ten or twelve years without producing a solitary pear. An orchardist may well become impatient with such trees, and cast about for some method to expedite their fruitfulness.

Let him try root pruning. Late in the Autumn, or early in Winter, uncover the ends of the roots, and with a sharp spade, cut off the tap-root, if there be one, and shorten the side roots, more or less, according to the luxuriance of the tree. The side roots should be removed with a pruning knife, and with an upward drawn cut. At the first operation, let the pruning be moderate.

Another method is to transplant non-bearing trees frequently—say every two or three years. Of course, this can be done only on trees of a moderate size. This is, in reality, a sort of root-pruning. It checks the flow of sap to the extremities, and converts side buds into fruit spurs. Trees so treated should be kept vigorous, by ample manuring. Mr. Rivers, of England, an eminent pomologist, practices this method extensively to bring new varieties into early bearing. He prefers it to grafting on the quince, because, after his trees have been tested, he can withhold root-pruning, and his trees then assume the qualities of standards. He does not recommend the long continuance of this practice on any one tree. Too long, and too severe root-pruning injures the quality of the fruit, and shortens the life of the tree.

A Centenarian Planting Trees.

One of the earliest things we remember to have read was the story of the Emperor Hadrian, and the old man planting trees. We have often read the story since, and some subscriber has dropped it into our drawer again. It is none the worse for age and we give it room here thinking that some persons may not have seen it, while others will be pleased with the second, fifth, or even the tenth perusal. The lesson taught is an excellent one.

The Emperor Hadrian, passing near Tiberias, in Galilee, observed an old man digging a large trench in order to plant some fig-trees: "Hadst thou properly employed the morning of thy life," said Hadrian, "thou needest not have worked so hard in the evening of thy days." "I have well employed my early days, nor will I neglect the evening of my life; and let God do with me what he thinks best," replied the man. "How old mayest thou be, good man?" asked the emperor. "A hundred years," was the reply. "What," exclaimed Hadrian, "a hundred years old art thou, and still planting trees? Canst thou, then, hope ever to enjoy the fruits of thy labor?" "Great king," rejoined the hoary-headed man, "yes, I do hope, if God permit, I may even eat the fruit of these very trees; if not, my children will. Have not my forefathers planted trees for me, and shall I not do the same for my children?"

Hadrian, pleased with the honest man's reply, said, "Well, old man, if ever thou livest to see the fruit of these trees, let me know it. Dost thou hear, good old man?" and with these words he left him. The old man did live long enough to see the fruits of his industry. The trees flourished and bore excellent fruit. As soon as they were sufficiently ripe he gathered the most choice figs, put them in a basket, and marched off toward the Emperor's residence. Hadrian happened to look out of the windows of his palace; seeing a man, bent with age, with a basket on his shoulders, standing near the gate, he ordered him to be admitted to his presence.

"What is thy pleasure, old man?" demanded Hadrian.

"May it please your majesty," replied the man, "to recollect seeing once a very old man planting some trees, when you desired him, if ever he should gather the fruit, to let you know. I am that old man, and this is the fruit of those very trees. May it please you graciously to accept them as a humble tribute of gratitude for your majesty's great condescension." Hadrian, gratified to see so extraordinary an instance of longevity, accompanied by the full manly faculties and honest exertion, desired the old man to be seated, and ordering the basket to be emptied of the fruit and to be filled with gold, gave it him as a present. Some courtiers, who witnessed this uncommon scene, exclaimed, "Is it possible that our great Emperor should show so much honor to a miserable Jew?" "Why should I not honor him whom God has honored?" replied Hadrian: "Look at his age, and imitate his example." The Emperor then very graciously dismissed the old man, who went home highly pleased and delighted.

Locust Tree Borers.

To the Editor of the American Agriculturist.

The locust trees seldom attain much size in this part of the country, as they are so preyed upon by the borer, which often works its way into the solid trunk, but especially delights to bore through the smaller branches which it clips off in large quantities, and sometimes nearly covers the ground beneath with the trimmings. By the advice of a friend of mine, I tried the experiment of boring a ¾-inch auger hole two feet from the ground in a couple of trees, filling it with sulphur, and plugging up tight with a piece of soft pine. The sap having already risen, I saw no difference in the appearance of my trees that season, but examining them each year, for three years in succession, I discovered no trace of a borer. On the fourth year, the strength of the sulphur being exhausted, as I suppose, I found a few traces of the pest. I then gave the trees another dose, and the present year will decide the results.

JAMAICA PLAIN FARMER.

Massachusetts, June, 1858.

REMARKS.—Theoretically, we should have little faith in the above remedy, and we suspect that "Jamaica Farmer's" second trial will not correspond with the first one in supposed results. We also surmise that if he will remove the plug of pine wood, he will find the sulphur about as he left it four years ago. This is only a surmise, however, founded upon the fact that sulphur is not soluble in water, and also upon the consideration that the sap vessels, being cut off by the auger, the sulphur would not be drawn into the circulation. This, we say, is what we would infer from theory. It is not impossible, however, that within the living plant, the *sap* may dissolve small portions of the sulphur, especially if in the powdered state and not in the form of roll brimstone as it has been sometimes tried; and that even a small quantity of sulphur working into the sides of the auger-hole might be distasteful to the borer. We have received and seen accounts of what appeared to be well conducted and well attested experiments, though we have supposed that the results were chance coincidences, the departure of the insects being due to some other cause. We will also suggest that, should any one deem it worth while to experiment further, it is unnecessary to bore the tree to the heart, as the main circulation of the sap is in the inner bark and outer or new wood; though it is possible that some of the sulphur may be carried into the pores of the heart-wood by capillary attraction.—ED.]

Apple Tree Borer.—*Saperda bivittata.*

To the Editor of the American Agriculturist.

In your February number we are treated to a drawing of the apple tree borer, accompanied with a few remarks by Mr. J. S. Keller, which are very acceptable as far as they go, but the history is so very brief that more is desirable as a guide in combatting this formidable enemy.

Mr. Keller makes out the whole period of the saperda's existence only one year. This is surely an error. Dr. Harris, a standard author, says: "the larva state of this insect continues from two to three years."

Dr. Fitch, in his able report to the State Assembly for 1855, has given us an excellent and full description of this insect and its habits, but he has most unpardonably omitted its chronology, which is clearly the main key to its destruction; for nothing can be more desirable than the entire plan of its campaign.

For brevity's sake I will omit the description of the saperda and its larva, for these may be found in periodicals innumerable, and take up its doings chronologically.

Soon after the 15th of June, in this latitude, the saperda comes out through the bark of the apple tree from four to fifteen inches above the ground. Now, don't let farmers imagine that this gimlet hole is its entrance, and so spend their time in probing it or in pouring boiling water into it, for the gentleman is not there. He is "out."

This handsome beetle, like other evil doers, now flies about in the darkness of night, for a month or more, and deposits her eggs, one in a place, not on the bark as some say, but in a crevice in the cuticle or outer bark, generally near the ground, or in the axils above. In a few days the genial rays of the sun hatch out of this little egg a solitary and minute maggot or larva, having no legs at any time.

This little rascal commences feeding and gnawing its way to the *liber* or inner bark, and after a week or two's labor and growing it reaches the sap wood where it continues a long time, feeding on its soft surface and the *cambium*. It now cuts round and round in the soft wood, pushing its castings through small holes in the cuticle like fine saw dust. It sometimes feeds in this manner until about the first of October, forming a smooth, flat, irregular cavity, varying in size from a half to a whole dollar.

He now begins to think about Winter quarters, and closes the doors through which he had ejected his castings, by plugging up all around them firmly with the same material. He then prepares for himself a bedroom by boring into the sap wood, until he has excavated a space large enough to receive him comfortably. Here he bends himself into a graceful curve, and "lays him down to sleep" till Spring.

September is the month in which to dislodge the enemy. Clear away the grass and rubbish, and brush off the dust from the body of the tree near the ground, and if the chap is there, you will find a dark colored spot on the bark, varying in size from that of a five cent piece to a dollar, or larger according to its stage of development. If you have any doubts of the presence of the larva, sound the part, by thumping on it with the handle of the knife, just as the woodpecker sounds it with its beak. If it sounds flat or hollow he is there. Cut all around the dead spot, remove the bark and there you find him, unless a woodpecker has been there before you.

In this situation, if not disturbed, the larva remains till the next May or June, when he awakes and commences with increased vigor his career of destruction. He now bores directly into the duramen or heart-wood of the tree, stuffing up the former cavity with his castings. He frequently passes quite through the tree and pushes out a heap of his chips upon the opposite side. He continues to bore tortuously in all directions till September, when he makes preparation for his change, by boring from the center of the tree upward and outward till about the close of the month, when he has reached the bark from 6 to 14 inches above the ground. If he reaches the bark sooner than he intended he tacks off and feeds inward awhile; then puts upward and outward to the bark again, enjoying himself a little longer, and doing a little more damage.

Having reached the bark, he bores through it to the cuticle, and commences tearing off the sides to make more room. He then turns head downwards, and packs his castings in the upper end of the hole firmly, to keep out the cold, and turning round to his former position, adjusts his bed, and once more takes a nap till Spring. In the latter part of May he revives and changes to a pupa state, and in a short time, comes out a *saperda* again. Soon after the 15th of June, he has acquired vigor, so as to be able to tear away the stuffing at the upper end of the burrow. He then bursts through the cuticle and comes forth a full-grown, vigorous and active miller, ready to generate a new race of enemies.

Now for their destruction. If they have not been dislodged in September, we shall have a more difficult task during the next Summer. He has now worked his way into the duramen, boring it in many directions before he goes upwards to the close of his journey. To search for him with a chisel, knife or gouge may girdle the tree, and a wire probe or wooden one is not sufficient. I prefer to make six or a dozen probes of whalebone from an old umbrella. I make them from 6 to 12 inches in length, about the size of a coarse knitting needle. Let the end be round and smooth. These are so flexible and elastic that they may be pushed in any direction till the insect is killed.

If I am satisfied there is only one larva in a tree, and the Summer is far advanced, I prefer to shut him in, as less injurious to the tree, than to cut him out. For this purpose I stuff the burrow up with mud, and bind a thick woolen rag firmly around for a foot or so above the ground. Thus shut in he must perish.

As a preventive I procure a lot of sixpenny muslin, tear it into strips about 4 inches wide and 3 yards long. I roll these up tight for convenience, and put them into a basket, with a few papers of sixpenny pins, and a trowel. With my trowel I clear everything away just to the earth, and wind around my bandage for a foot or so, pin it fast, and the work is done.

This process is quickly performed. The articles are cheap, and far more permanent than pa-

per. They will last several Summers, for they may all be removed in October and replaced in May. JAS. FOUNTAIN.

Westchester Co., N. Y.

Destructive Insects Upon Trees.

IMPROVED APPARATUS FOR PROTECTING TREES FROM CATERPILLARS, CANKER WORMS, MEASURE WORMS, AND OTHER INSECTS.

It is well known that many of the insects which commit such vast depredations upon fruit and shade trees, either ascend the trunk of the tree or are produced from the eggs of insects that have previously climbed up. Various contrivances have been proposed, and some of them put in practice, for preventing the ascent of the depredators. The best thing of the kind we have hitherto seen was a leaden trough put around the trunk and filled with oil. This has been in a measure effectual, but is liable to several objections, not the least of which is the expense and constant care required to keep them in order. We hail with pleasure, therefore, a recent improvement invented by Capt. Wm. W. Taylor, of South Dartmouth. From one of these appliances now in our office we have made the engravings on this page and we will give a brief

DESCRIPTION.

Fig. 1, exhibits two parts of the iron trough for holding the bitter water described further on. It will be seen that it is constructed of two halves of a circular trough.

Fig. 2, shows the two parts brought together, to form a complete circular trough. Between the ends of the pieces is inserted a slip of India Rubber, and the parts are held firmly by the screws (*s.* fig. 1) which pass through flanges on the outside of the joining points.

Fig. 1.

Fig. 2.

Fig. 3, is a tin or zinc roofing which is placed above the trough and projects some distance over it to shed off rain, keep out leaves, &c. This has a turned up edge with two or three openings (*b*) to discharge the water at those points. This is fastened to the tree by two or three small nails or by simply bending in the pieces (*a*) at the top—the former mode is preferable, we think. It will also

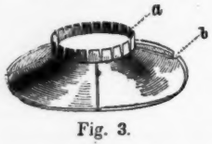


Fig. 3.

be noticed that the pieces (*a*) in the upper part of the roof can be bent inward or outward to fit a larger or smaller tree. One of the joinings is left unsoldered, so that it can be unlocked when putting on or taking it off.

Fig. 4, shows the circular trough placed around a portion of the trunk of a tree. The trough is larger than the trunk, and the intervening space is closed by a packing (*p*) of hemp, oakum, cotton, old cloth, sea weed, fine hay, or other material. The water running down the trunk will pass through this packing. Two or three holes are made in the upper inside rim of the trough, through which small nails can be driven into the tree if necessary to render it firm. Wedges may be used instead of nails, which will save marring the tree.

Fig. 4.

Fig. 5.

Fig. 5, shows the trough, packing and cover put on; the cover being cut away on the right side to exhibit the trough underneath.

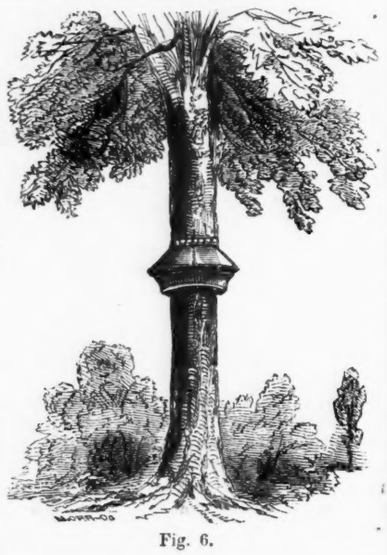


Fig. 6.

Fig. 6, above, shows a tree ready fitted up.

When arranged upon the tree, the trough is filled with a "Bitter water," instead of oil as in the old mode, and this is one of the points claimed by Capt. Taylor, in his patent. Oil is not only expensive, but it is also more liable to be bridged over by the insects which fall into it in great numbers. The "Bitter Water" is the refuse liquor left after boiling down or evaporating sea water in the sun and crystalizing out the salt. It contains magnesia and other bitter fluids. While it is poisonous to animal life it is *deliquescent*—that is, it attracts moisture from the atmosphere, so that when drying away somewhat in a hot sun it will again attract water at night and the troughs will thus be kept at least partially supplied with liquid. Another item is, that it does not freeze in cold weather. It has the special merit of being very cheap as it can be obtained from the numerous salt manufacturers, for a trifle above the cost of barrels, putting up, and transportation.

The troughs are to be made of various sizes, from two or three up to thirty or more inches in diameter. The one we have is cast very thin. The inventor, wisely we think, proposes to sell them at a low price with the view of securing their general adoption. By the insertion of plenty of packing, next the tree, when first put on, allowance may be made for two or three years' growth of the tree, in the selection of the sizes. We understand the cost for troughs, covers, &c., complete will be about 10 cents for each inch in diameter of the tree, for those of moderate size, less for large trees, and a trifle more for those very small. Thus, say for a tree 5 inches in diameter, the cost would be about 50 cents; 7 inches in diameter, 70 cents. We watched the operation of putting up and taking care of the leaden troughs around the numerous noble elms in New-Haven, and if we remember rightly, the cost to the city was, we believe, at least $2 per tree—and we think much more. It will be seen, then, that by the use of the iron troughs, bitter water, &c., a great saving will be effected in the expense, to say nothing of the greater protection thus secured. With one of these upon a tree, we do not see how it is possible for insects of any kind to ascend or descend.

The above we have written from a brief conversation with the inventor on his return from Washington, and without opportunity to consult with him. As before stated, the engravings are made from an apparatus left with us for examination. We have given thus much prominence to the subject, because we deem it one of great importance, and one which should be brought to public attention the present year. The "canker worm" or rather the moths that lay the eggs to produce them, are now in a quiescent state in the ground. About the first of October, and at various times from that up to April, they will leave their hiding places and ascend the trees to lay the eggs for next year's crop of worms. It is well to be prepared in time to head them off.

Since writing the above, we have received a communication from our long-time correspondent, "R.," of New-Bedford, and give the following extract. "....The Aphides, commonly known as the plant or tree-louse, derive their sole nourishment by tapping the bark and sucking the sap. They abound, at times, in such numbers as not only to prevent the formation of fruit, but also to greatly injure the tree. They are perfect vampires, sucking the life-blood of the tree with a voracity which is unappeasable. They not only feed themselves, but constantly, by ejecting a sweet honey-like fluid, act as '*cuisiniers*' (food providers) to colonies of ants which are seen in great numbers ascending and descending the tree where the little insects (aphides) congregate. The tree-disease known as 'American blight,' is by some supposed to be caused by their inroads.

I had an opportunity, a few days since, of watching the practical operation of Capt. Taylor's new invention, and to my mind its superiority over any previous contrivance is conclusive. The cups were placed around apple-trees, say of 12 inches or more average diameter. Upon the surface of the bitter water thousands of aphides, canker worms, &c,, were floating—a few struggling hopelessly, but most of them as Dickens says—'as dead as a door nail:' while the bottom was black with them, although the troughs had only been on forty-eight hours. The circle of bitter water is an impassable gulf, a perfect 'Styx,' with no Charon to ferry them across, whose waters are oblivion to all insects that attempt to swim over."

Feeding the Cut Worm, and then Catching Him.

To the Editor of the American Agriculturist:

Almost every one is troubled with the cut worm among cabbages. I manage in this way. Having a surplus of plants in a bed by themselves, I go over the transplanted patch frequently, and when I find one cut off, I replace it with another, leaving the cut down stalk by the newly planted one, and if I have not succeeded in killing the grub, or if another one comes, he is *sure* to take the plant lying upon the ground rather than the one recently set out. While feeding upon this you may kill him, or if neglected he may need no other food. If the worms are very troublesome I pull up some of the weakest plants and lay them

by the growing ones, and commence killing the worms the next morning. In this way I seldom fail to save the plants I wish to remain.

Delphi, Ind., June 20, 1858. J. PEFFLEY.

The Curculio.

To the Editor of the American Agriculturist:

What shall be done? Is there no help? These pestiferous little fellows are getting so bad, in most localities here, that in defiance of every known remedy (unless a man should be hired to watch each tree, and catch them singly, which wont "pay") they ruin all the plums—and not only so, but even apples, cherries, pears, and often peaches are attacked. Must we give up, and cut down all our trees? Is there no cheap "kill or cure" sort of application that could be applied, say to the soil around each tree during the Winter, or early in Spring, to kill them all as they appear, *certain*; and which might, *perhaps*, not kill the roots of the tree itself? Would sulphur, lye, or brine do? And how much to a tree?

Z.

Cumberland, Md.

REMARK—We must hand our correspondent over to our readers. We have from time to time given all the light we could on this subject—not much we confess. We are in the situation of Dickens' "Micawber," who was waiting "for something to turn up."

CONQUERING THE CURCULIO.—Apropos to the above, Mr. W. N. White, of Augusta, Ga., writes to the July Horticulturist that he has succeeded this season in conquering the great enemy of the plum. He says: "Forces employed against him—one man, one little girl, three two months' pigs, sixteen Brahma fowls, and two Muscovy ducks. Implements, a mallet and tin bucket. Modus operandi: the nectarine trees being the most dangerous point, were fortified by keeping the troughs for watering the fowls, &c., underneath them. The trees were briskly shaken every morning—jarring the large ones with a mallet. Under the bearing trees, the corn for the fowls, &c., was scattered directly after they were shaken. At night, all the fruit not consumed was picked up carefully by the little girl and boiled and fed to the cow. Result: though plenty of fruit was visible the first few days, the enemy seems to have retreated. Plums are beginning to ripen, so the crop may be regarded as secure. Some twenty-eight sorts of plums, and two nectarines are full of fruit, which will yield probably ten bushels at least; had the trees been large enough, they would have yielded three times as much with no more trouble; half an hour a day will more than do the work in an orchard that would yield fifty bushels of fruit; except the packing up, which is a trifle."

Crowded Plants.

Full one-half of the vegetables and flowering plants in our gardens are suffered to stand too closely together. Beets, onions, carrots and parsneps are often checked in their growth by neglect of thinning them out when quite small. The roots should never be allowed to touch each other. Cucumbers, squashes and melons are often injured by crowding. Three plants in a hill are much better than six. If allowed plenty of room, they grow faster, the fruit becomes larger, and matures earlier. It sometimes requires a good deal of resolution to pull up a vigorous vine, and to throw away incipient beets and onions; but every gardener who has observed the rampant growth of these plants will not fail to exercise such resolution.

The same thing may be said of annual flowering plants. Even those designed for "massing" should not crowd and choke each other; room should be allowed for the expansion of leaves and roots. The full beauty of the foliage and flowers of many annuals is never seen. Asters, stocks, balsams, dwarf larkspur, phlox Drummondii &c., are much improved by standing five or six inches asunder. The Drummond phlox flowers almost as constantly, and as long as the verbena, if treated in the manner here suggested.

How to Water Plants.

This is usually badly done. Water is poured upon the surface, enough, perhaps, to wet down an inch or too. The water washes the fine earth into the chinks and interstices, and there the plant stands with dry or only moist soil below, but with a baked mass on the surface which shuts out warmth, air and the moisture that would be derived from its free circulation. One of two methods should be adopted. Remove the surface earth and pour on water enough to reach the wet subsoil, and when the water has soaked in, replace the dry surface soil, to be moistened from below. Or, make a hole as near the plant as you can without disturbing the roots, and fill this with water two or three times, and afterwards fill it with the dry earth first removed. At all events, when you water at all, water freely and with the foot or a hoe throw a little dry earth over the surface as the water settles away. These are important hints. A few plants thus well cared for will yield more than three times the number carelessly treated.

You can Transplant in Hot Weather.

In the very hottest days, during the fore part of July, we reset several hundreds of plants, at different hours of the day, without using the slightest covering to protect them from the direct rays of the sun, and yet not one failure occurred, and scarcely one plant in twenty showed signs of even temporary drooping. We venture to say that we can take up any kind of plant, not over a foot high, and move it to a new locality in the middle of the day, in the driest season, and this too, with scarcely checking its growth. We make these positive statements to call attention to the mode of operating.

1st. Thoroughly wet the earth around the plant to be taken up. Repeat the wetting several times during an hour, until the water penetrates to the bottom of the fibrous roots.

2d. With a trowel, shingle, or thin board in the right hand, loosen a mass of earth around the plant, grasp this earth with the left hand and press it into a ball which shall contain a large share of the roots still surrounded with the original earth. Set this into a basket with as many more, similarly taken up, as the basket will hold in its bottom. Carry them to the new location.

3. Dig for each plant a hole large enough to hold at least two quarts of water. Pour it full of water and hold the plant in it with one hand, and with the other draw in the loose earth as fast as the water sinks away, so as to keep the hole full of water until it is all soaked up. Let the plant stand at the same depth in the earth as it stood originally.

4. Important. Draw over the surface of the hole, thus filled, half an inch of *dry* earth. This will be moistened by the water soaked up from below, but will remain open, and not matted or baked as is always the case when water is poured upon the top.

The whole of the above is quickly performed, and your plants then stand in a thoroughly moistened mass of soil, and their feeding roots having been partially undisturbed carry on their functions as if nothing had happened. They will even do better than the unmoved plants standing in dry ground or watered upon the surface only. Cucumber vines, corn, cabbage plants, in short, any and every variety of plants may be transplanted whenever you desire, with perfect safety. We speak from experience as well as theory.

Winter Cherry Seed Sprouting Late.

We hear from several that the seed of the Winter Cherry, (*Physalis viscosa*) failed to come up. Our own experience will perhaps instruct others. The seed raised by ourselves, and that obtained from Mr. Goodsell, and from others, so far as known to be good and of the same kind, we mixed all together intimately. This we called No. 1, but did not so mark the seed-bags. The second lot of 4 lbs. obtained from Rhode-Island, was kept by itself, and the parcels sent out to subscribers were marked upon the back with a figure 2.

No. 1 we had planted in the Green-House in March. It came up slowly, and we were disappointed in getting a smaller lot than we expected and had provided ground for. May 3d, we put a quantity of the same seed in the open ground. Seeing no appearance of its sprouting up to June 3d, we sowed anew, in rows 4 inches from that sown May 3d. The last sown came up first, but that sown May 3d, appeared soon after. July 8th, both plantings were 4 to 8 inches high, and from their thickness in the rows we judge that *every seed must have germinated.*

No. 2 (Rhode-Island Seed) was sown in the same manner, May 3d and June 3d, with precisely the same results. We can see no difference in the appearance or growth of the two kinds. Though, apparently, every seed sown May 3d came up, yet not a plant appeared in sight until about *six weeks* after sowing.

The ground occupied by the Winter Cherry last year was left vacant. There were no signs of a volunteer crop until the last of June, when myriads of plants came up and completely matted the ground. We have given away several hundred of plants, moved many hundreds to other ground, and destroyed thousands. The above results show that the seed is slow in vegetating. It will be noticed that not only that sown the first of May, and the first of June, but also that lying in and upon the ground through the Winter and Spring, all came up together the latter part of June. The *Physalis alkekengi* seed, sown in the Green-House, came up earlier and better than the other variety, but the plants are now the smallest.

Early Tomatoes.

One way to hasten the maturity of tomatoes is to build a temporary pen around each plant, say five feet high on the back and one foot on the front, or south side, the east and west sides sloping. Over this, lay a window sash early in the season, to be removed in the middle or latter part of Summer. As the plant grows, train up the branches on the back side of the pen, like a grape vine. Where one has a high and tight board

fence, with a southern exposure, this forcing-house can be more easily made.

But whether this expedient is tried or not, it is very beneficial to pinch out the leading shoots of such as are wanted early, soon after the fruit on the lower branches is half-grown. It will be found that too-thirds of the fruit is on the lower part of the vine, and the loss from pruning is therefore inconsiderable. By this pruning, the forces of the plant are directed chiefly to maturing the fruit. A portion of one's plants should be left untrimmed, so as to furnish a succession of fruit till frost.

*

Peabody's Strawberry—Not a Humbug

We are free to say that we are happily disappointed in the results obtained with this plant. In the Spring of last year we procured 2½ dozen plants to experiment with. They were set out with too much care, just before the long cold rains in May. The soil, for nearly a foot square for each plant, was loosened deeply, and mixed with bone sawings. The rain settled this loose soil so much as to form a basin, and the plants—already enfeebled by a long transit from Georgia—were nearly drowned out. Only ten of the thirty survived at all, and these had not attained leaves larger than mouse ears up to the latter part of July. About July 1st the whole mass of earth around each plant was raised and earth thrown under. They grew very vigorously in August, sending out large numbers of runners, and before the season closed we had about 600 plants, a part of which had been transplanted from time to time, and a part given away.

The old bed contained about 70 or 80 plants in the Spring of this year. These bloomed well, but the first flowers did not seem to set well, yet they continue to bear, and there is still ripening fruit (July 12). We have picked from the old bed over a measured peck of fruit, besides some from the vines transplanted last Fall.

The fruit is necked, deep colored, very solid, averaging as large as the best of several improved varieties we have growing near, and it has a very rich pine-apple flavor. For our own eating we prefer the Peabody to any other strawberry we know of. We do not suppose it will, under all circumstances, produce quite so freely as Longworth's Prolific, and some others, but its superior quality, and the vigorous habit of the plants, incline us to place this variety far up, if not at the head of the list of desirable strawberries. In this opinion we are far from being alone, though at variance with the judgment of several cultivators who have written on the subject this season. Mr. Lockwood, of Stamford, Conn., brought us a basket of this fruit, which exceeded our own in size. He had a dozen plants last year which extended to some 70 or 80 during the Summer. From these he gathered a quart a day for some two weeks. He puts it ahead of every other variety. Dr. Ward, of Newark, N. J., who grows the best varieties largely, says that the Peabody quite exceeds all expectations he had previously formed. Several others in our acquaintance speak in similar terms.

Speaking of strawberries, we must not forget to return our thanks to Mr. Scott, of Plainfield, N. J., for that great basket of great strawberries (Hovey's) which came to hand last month. Out of curiosity we weighed and counted the entire contents of the basket, and found they averaged 56 berries to the pound avoirdupois. May our friend Scott and his good wife long live to cheer not only editors, but many others by *such* fruit.

IN DOOR WORK.

A Chapter on Meats

The Composition of Meat—Best mode of Cooking Fresh Meats—Meat Broths—Liebig's new Strengthening Broth for the Sick—Salting or Pickling Meat—Boiling Corned Beef and Mutton, &c.

WHAT IS MEAT?

We have in most kinds of meat a mixture of lean flesh with fat. The fat is a simple substance much like oil in its composition. This serves an important end as food, since it supplies the fat of the body, and at the same time the materials for keeping the body warm. Separating the fatty portion from meat we have the *lean flesh*, which is a more complex substance than fat, oil or tallow. The lean flesh of the body is called muscle; thus, when we speak of a strong, muscular man, we imply one who has a large amount of lean flesh, and one's strength depends upon these muscles which, by their contraction and expansion, move the limbs. A person may have a large, heavy body, but be very weak, owing to a lack of this lean or muscular flesh.

The muscles consist, first, of long bundles of *fibrin*. Among these muscles are cells, in which are deposited particles of fat or oil. With the muscles are mingled nerves which set them in action, and also blood vessels. There is also much water, amounting to nearly three-fourths of the entire weight.

The muscular or lean flesh taken together, is composed of: water; *albumen* which is like the white of an egg in its composition and properties; *gelatine*, the substance which dissolved in water forms a jelly when cold; *fibrin*, the substance which coagulates and forms the clot of blood leaving the clear albumen—it exists in the muscles as long small strings. The *albumen*, *fibrin*, and *gelatine* are somewhat similar in composition, and all contain nitrogen.

The average amount of each of these substances contained in several kinds of fresh, lean flesh, is shown in the following table.

100 lbs.	Water.	Albumen and Fibrin.	Gelatine.	Total Solid Matter.
Lean Mutton	.71 lbs.	22 lbs.	7 lbs.	29 lbs.
" Chicken	.73	20	7	27
" Beef	.74	20	6	26
" Veal	.75	19	6	25
" Pork	.76	19	5	24
" Codfish (fr'h)	79	14	7	21

In the above table it is assumed that *all* the fat or oil has been separated. Usually, however, there is an average of about 8 lbs. of fat left in 100 lbs. of lean meat, after all the visible fat is removed.

If we take a quantity of fresh lean meat and cut it into small bits, then soak in water and press it, a peculiar liquid will be obtained which contains the elements that give *taste* or *flavor* to the meat. Eighteen pounds of this liquid contains about one pound of rich food. It is the loss of this savory element which renders salted meat, or that improperly boiled in the open air, so comparatively tasteless.

COOKING FRESH MEATS.

We are now prepared to understand how to cook meat in the best manner. If we put it into cold water and let it stand only a little time before boiling, the water will abstract much of the juices of the meat. If, on the contrary, we drop meat into water already boiling, the high heat will at once coagulate or harden the albumen upon the surface, just as boiling hardens an egg. The hard coat thus formed upon the surface prevents the juices from flowing out, or the water from entering to soak them out, and the meat retains its good flavor.

After a brief cooking of fresh meat there is no further necessity for keeping up the boiling heat of 212°. A temperature of 170° is amply sufficient to coagulate or cook the blood. Considerable *time* is required for the heat to penetrate entirely through the substance of the meat, which is a slow conductor of heat (caloric).

The same rules apply to baking meats. They should at first be put into a *hot* oven to form a coating of albumen to retain the juices, and then lower the heat before a hard burned crust is produced, but keep just hot enough to prevent any charring, and allow time for the heat to penetrate to the center. Few persons cook steak or mutton chop well, simply because they slowly heat it in a frying pan or on a broiler, and allow the rich, savory juices to ooze out and escape. The fire should be a brisk one, and the supporting irons hot before the meat is put on, and then let it be cooked as quickly as possible without scorching.

BROTHS, SOUPS, BEEF-TEA.

Just an opposite course to the above is to be pursued, when it is desired to extract the nutritious juices of meats. In this case, cut the meat into very thin pieces, or better, chop it as fine as possible, and place it in cold water, allowing it to stand for a short time before heating; heat gently, and after a time boil for a few minutes; then remove the meat by straining and pressing in a cloth. Liebig directs: "Take one pound of lean beef, *free from fat* and bones, and reduce it as fine as sausage or mince meat; mix it uniformly with boiling water; slowly heat it to boiling; after boiling briskly for a minute or two, strain it through a towel from the coagulated albumen and fibrin, which have now become hard and horny, and we obtain an equal weight of the most aromatic soup, of such strength as can not be obtained by boiling even for hours, from a piece of flesh."

An aged matron of our acquaintance, in repute for her good preparations in the cooking line, makes beef-tea by cutting fresh lean beef into fine pieces, and inserting them without water in a common junk bottle. This is corked up and put into cold water which is gradually heated and then boiled for some hours. The contents of the bottle are then pressed to extract the juice. This mode of cooking in a close bottle prevents any escape of flavor, while the slow conducting power of the glass prevents a rapid heating at first.

LIEBIG'S STRENGTHENING BROTH FOR THE SICK.

In addition to Liebig's common broth described above, we give his prescription for making a cold broth which shall contain the nutriment of meat, without coagulating the albumen by heating, which renders it less digestable for persons debilitated by fevers and other diseases.—Take of perfectly fresh lean beef or chicken, say half-a-pound, and cut in small pieces. Put this in 1½ lbs. of cold, distilled or pure soft water, to which there has previously been added half-a-teaspoonful (½ drachm) of common salt, and four drops of muriatic acid. Mix these materials well together and let them stand half-an-hour. Then strain through a hair sieve, or coarse linen cloth, without pressing or squeezing. The first portions coming through will appear cloudy, and these may be poured back upon the sieve several times if need be, until it passes through clear, but of a red color. Upon the meat left in the sieve pour half-a-pound more of water, a little at a time. About a pound of *cold* extract of meat is thus obtained; and if made perfectly cold, and kept so,

it forms a pleasant broth very easily digested. It is difficult to prevent its souring if made, or kept many hours, in warm weather.

BOILING CORNED BEEF AND MUTTON.

An Iowa Housekeeper writes: "In last volume (page 265) you gave directions for boiling corned beef, which my 'good man' says are worth more than the cost of 50 subscriptions—we have sent only twenty-eight of them yet, but the rest will come. We have loaned that November number until it is all worn out in showing it, and I write to ask for another copy. Allow me also to ask you to repeat in substance the remarks you then made, for I think every new subscriber should have the benefit of them....."

The directions for cooking corned beef, and also corned mutton, are: Soak it in cold or slightly warm, not hot, water until no more salt remains than will season it for the table. Then put it into a kettle, and cover it so that all the steam will cool and condense upon the under side of the cover and fall back. Every particle of steam that escapes carries away some of the aroma or flavor of the meat, and leaves it less palatable and juicy. A tin pan set into the top of the cooking vessel and kept filled with water, is a very simple arrangement for condensing the steam and causing it to fall back. The water in the pan keeps the bottom cool enough to condense the steam. Any shallow vessel, or a common tin cover with the edges turned up to hold water, will answer the purpose. Cook the meat in only water enough to cover it well; if protected as above, the water will not boil away.

Cook the meat until it is entirely tender, so much so that the bones, if there be any, will drop out of themselves. This cooking may take four or five hours, but no matter, let the meat be reduced to a *tender* condition.

Take out the meat, removing the bones. Skim off any fat floating upon the liquor, and then boil it down slowly to a thin gravy. Mix the fat and lean meat together and put into a deep dish, say a three-pint or two-quart basin. Then pour in the liquid, and lay over the whole a plate or round tin; place upon the top twenty or thirty pounds weight of some kind, and set aside to cool. In this way you will get a solid mass *containing all the nutriment* of the meat, and "as tender as chicken," no matter how coarse and cheap the original beef or mutton. The gelatine in the gravy will harden the mass enough to allow it to be cut into thin slices, which will present a fine marbled appearance if there was a proportion of fat and lean.

Meat prepared in this way forms an excellent substitute for dried beef or cold boiled tongue. Try this plan two or three times, and you will prize it as highly as does our fair correspondent at the West. Let us add that the cheaper, coarser portions of meat, cooked as above, are really better than the choicest cuts boiled in the usual manner.

SALTING OR PICKLING MEAT.

Salting, corning or pickling meat more than two or three days, would never be desirable, could it be avoided, for salt preserves by a kind of drying process, that is, it extracts the juices of the flesh, leaving chiefly the dry fibers. This juicy portion goes into the brine and is necessarily thrown away. The effect of salting is much like that of soaking meat in water, and boiling to extract soup. If dry salt be thrown over meat, it will in a short time extract fluids enough to give a large quantity of brine, and this brine is very rich in nutritive elements, but is worthless for food. It is, however, an excellent fertilizer, and should therefore always go to the compost heap, or be diluted with water and thrown upon the garden. It is especially valuable for asparagus beds, though a large quantity thrown upon one spot may be injurious to the plants.

We advise to salt as little meat as possible. But in the country homestead, where meat is not procured daily from the butcher's cart, pickling is indispensable. Let it be kept in mind that the chemical character of meat is always changed by salting, and that it is rendered far less digestable; and especial care should be taken to have it well masticated, or ground, before it is swallowed. The process of cooking recommended above assists the mastication by diminishing toughness. If the housewife, after preparing it for the table will cut it into very *thin* slices, she will then obviate the usual danger, that young or *grown up* children will swallow it in lumps too large for easy digestion—a matter of no little importance, as was shown in our last number, page 214.

A Fly Trap.

We remember to have amused ourselves, when a boy, in "catching flies" with a home-made trap, consisting of a tumbler, part full of water, and covered with a slice of bread, having a hole in the centre, and molasses on the under side. The flies crawled through, and when satisfied with the sweets, they attempted to fly instead of crawling out where they came in, (foolish flies!) they came in contact with the water, and of course

were drowned. We were forcibly reminded of this primitive fly-trap, recently, by noticing an invention of Mr. Clough, one of the forms of which is shown herewith. It consists of a double band of tin, placed between two tumblers—the lower one partly filled with water. On the inside is a trough for holding molasses, to which the flies approach through the side openings, as seen in the cut. When satisfied with the bait, or when startled, they fly against the sides of the clear glass, and ultimately come in contact with the water. Without the tumblers, the apparatus costs only 25 cents. Larger implements are made on the same principle, with a tin vessel below, and a wire gauze cover.

A Batch of Recipes.

Fly Powder.

Mrs. Olive Vorce, McHenry Co., Ill., writes that by the continued use of "cobalt" for five years, the flies have been so entirely destroyed that no eggs have been laid and these pests have disappeared entirely this year. The cobalt is put into small round baking tins, two-thirds filled with boiling water and a heaping table-spoonful of sugar added to each. This is an effectual destroyer of flies we are aware, but the cobalt is neither more nor less than arsenic, and if used great care must be exercised. We have heard of children being poisoned with it.

To get rid of Ants.

Wm. Ades, Greenbush, N. Y., writes: "Plant in the arbor a root of *Southern-wood*, or lay a sprig of it on the pantry shelf and I can assure you that the ants will heed the admonition that it is time to leave." (We are not sure what plant Mr. A. refers to. An Associate at our elbow says, he has a *Southern-wood* Tree on his grounds, and the ants are abundant among a lot of clam shells lying around the base of the tree.—Ed.)

Raspberry "Shrub."

Jeanne, Lancaster, Erie Co., N. Y., sends us the following directions: Fill a jar two-thirds full of red raspberries, and cover them with pure cider vinegar or other good vinegar, and set in a *cool place* 24 hours. The second, and again the third day, put in fresh berries, enough to have them just covered with the accumulated syrup, keeping all the while in a cool place. The fourth day bring the whole to a scalding heat in a tin or porcelain vessel; then strain through a flannel bag, and add 1 lb. of loaf sugar to each 1½ pints of strained syrup; boil 10 to 15 minutes; skim, and when partly cooled put into bottles. Let the corks be loosely put in for the first day or two. To use it, put an inch or so in depth in a tumbler, add sugar, and when dissolved fill up with water. It makes a delicious beverage, far superior to champagne. We have it on hand 2 years old, and it is better, if possible, than when first made.

Drying Pie-plant.

Cynthia Stanley, Jefferson Co., Mich., writes: Peel and slice the same as for pies; then put on plates and dry in the sun—the oven turns them dark. The dried plant soaked, and stewed with sugar makes even a better pie than the green stalks....She recommends planting corn around the Pie-plant to keep it shaded.

Substitute for Ice Cream.

S. A. P., Carroll Co., Ind., writes: If you chance to have dry mealy apples, skin and core them; mash very fine, and add cream and sugar, and spice to taste. You thus get a dish little inferior in taste to ice-cream—if not so *cool*.

Curd Pie.

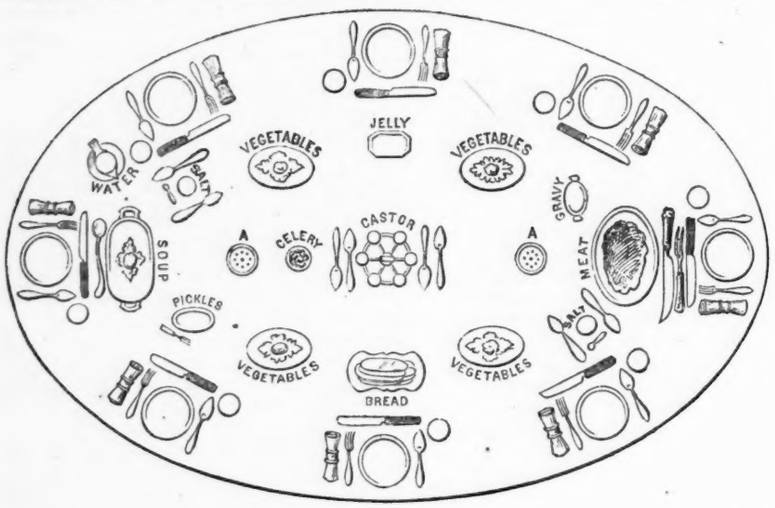
Mary Ann B., Pike Co., Ill., gives the following directions: Take 1 pint of curd made from milk just drawn; strain well from the whey and beat it fine; add 1 pint of new milk sweetened to the taste, and 3 or 5 eggs well beaten. Mix the whole well together, and bake with an under-crust, the same as custard-pie, in pie-pans, about an inch deep.

Roly Poly Pudding.

Contributed also by Mary Ann B. (This is the same, or similar to what is sometimes called Bolster Pudding—Ed.) Take 1 lb. of flour; a little over ¼ lb. of beef or mutton suet chopped tolerably fine—or an equivalent of butter. Mix well together and make into dough with water. Work it smooth, and roll to ¼ inch in thickness. Then spread on about ¼ inch of any kind of preserves and roll it up, closing the ends well. Sew it tightly in a cloth, and boil it 2½ hours. To be eaten warm with cream.

☞ We have other contributed recipes on hand which will find room in due time, but our drawer will hold still more good ones.

Many have suffered by talking, but few by silence.



Hints on Setting out a Table—Deportment while at Table, &c.

BY ANNA HOPE.

[*Continued from page* 217.]

[As the following is a continuation of a previous article referring directly to the above table, we reinsert our former engraving, with certain alterations made in accordance with the suggestions below.—ED.]

The engraver has certainly not been unmindful of my injunction "not to forget the *salt* spoons." I felt quite satisfied with the *table*-spoons I sketched, and thought they did me great credit, considering I make no pretensions to skill in drawing, but it seems that in making the picture, for the July number, the engraver took them to be salt-spoons, and furnished two to each salt, while only one is needed. These salt-spoons, (now changed to table-spoons), near the soup, are arranged in the right way. As the table was furnished in the July engraving, there were not sufficient spoons with which to serve the dinner, for no spoon should be used at the same meal for two purposes. Some families prefer to use small salts for each person. Then no spoons are required, but the salt must be changed daily. Sometimes one salt is placed between every two persons, and then, of course, spoons are needed.

I suppose my good friends have waited long enough for it, and I will proceed to set before them

THE DESSERT.

Let the waiter pass around the table with a small tray in her left hand, in which she collects the silver—the forks and spoons. When these are removed she may go around a second time in the same way for the knives. The knives and silver are taken separately to prevent scratching the latter. Sometimes a tray with two compartments is used, and if so, the silver and knives can be taken at the same time. It is better, also, to take the knives and forks in this way rather than on the plates, as it prevents the danger of their sliding from the plates, and thus soiling the dresses upon which they might fall. Then the plates are removed, together with the meat and vegetables, the casters, mats, salts, and everything but the glasses. The pieces of bread left are taken up with a fork, by the waiter, and put upon a plate she carries in her hand. Then with a crumb-knife, brush, or napkin, she takes off the crumbs into a tray or plate.

When the table is thus prepared, a dessert plate, with knife and fork, or spoon, as may be needed, is to be placed before each person. If finger bowls are used, they are put on with the dessert plate. They should be about a third full of water. A slice of lemon is sometimes put in each bowl. Colored doylies, or napkins are suitable for a dessert of fruit, as white napkins stain so easily.

The dessert, if it consists of only one dish, should be placed before the lady—if of two, or more, the most substantial should be placed before the gentleman. For a stylish dinner, fruit is brought on after pies and pudding are removed. If this is not done, it is desirable to have separate plates for it. When the fruit is brought on, and the glasses filled, the waiter may be permitted to leave the room.

When dining ceremoniously, do not take upon yourself the duties of the waiters. Let *them* pass the food; it is not your business at such a time. If there are no waiters, be attentive—observe what is needed by those near you, and pass it without being asked. Yet, in order to help yourself, or others, never pass your hand across another's plate, nor reach for what another can hand you.

If you dine at a table where there are several courses, take them in their proper order, or if you do not wish them, wait the appropriate time for them. Soup is always served first, and when dining ceremoniously, take it whether you like it or not. If you cannot eat it, toy with it; so also with fish. Fish should be eaten with the fork only. It is not customary to serve vegetables with fish, except potatoes. They should be whole. Other courses may be declined. You may have heard of the student dining among strangers, who refused everything upon the table, and when the lady, in polite despair, asked "Is there anything to which I can help you?" replied, "I will take a piece of pie, if you please." It is better to eat some things you do not like, than to be guilty of such ill-breeding.

Do not eat in desperate haste, as if you had not time to attend to the wants of the body God gave you, nor eat your food in immense mouthfuls, nor swallow it without proper mastication. Prepare your food on the plate; put gravy, or condiments, or whatever you please on it there, but do not attempt to improve it after you have once raised it from the plate. Do not ask for *meat*, but mention the kind you wish.

Do not take salt upon your knife, and make a great clattering by striking on it with your fork, that you may scatter it all over your food at once, but salt each mouthful as you eat it, either by touching it to the salt, or by touching your fork to the salt, and thus seasoning your food.

Do not lean your arms on the table, nor sit too far back from the table, nor lounge in any way. *Carry your food to your mouth, instead of your mouth to the food.*

Never use your own knife to help yourself. It is no more proper to do it than to help yourself from your neighbor's plate, and it is exceedingly unpleasant to those who must be helped after you, unless they are equally regardless of the delicacies of life.

If accidents happen at table, do not notice them. It is bad enough to tip over a tumbler and deluge the cloth, without having every eye turned upon you in consequence of it, and every mouth utter a prolonged "oh." Rather make as little of it as possible, quietly laying a napkin over it. So, everywhere, such little misfortunes should be passed over lightly, and not be allowed to disturb our self-possession.

It is desirable to conduct the table daily in such a way as to require no great change for company. Our friends enjoy themselves better when the usual order of a family is not disturbed, and they can feel that they do not add to the labor and cares of the housekeeper. And this additional care and anxiety detracts from the enjoyment of those who receive friends, quite as much as from those who visit us. It is not well to unnecessarily make "a toil of a pleasure." If the usual order is preserved, everything goes on much better; there are no mortifying mistakes, no blunders committed by the waiter, no "appearances" to be suddenly dissolved, and no pretensions unpleasantly revealed. Of course, I refer not to a ceremonious dinner, but to the entertainment of our ordinary guests from day to day.

When I was a child, I recollect a good old man dined with the family where I was spending the Winter. He talked about "long sarce," and "short sarce," and the lady of the house could not understand him, nor imagine what he wanted, but her husband was wise enough to know that when he asked for "long sarce," he wanted a vegetable that sends its roots tapering down into the earth, as the parsnep; and by "short sarce," he meant turnips and potatoes. Vegetables are neither "sarce" nor sauce. Sauce is something to give a relish to food, as Worcestershire sauce, cranberry sauce, apple sauce. It is better to call what is placed on the table for us to eat, food, rather than victuals. "Victuals" is obsolete in good society. We *may* speak of victualing a ship, but we buy provisions, or eat food.

Be particular in regard to the cleanliness and tidiness of your person whenever you go the table. Have your hair in nice order, your nails clean, and your teeth clean, too; and your dress such, that if a guest should unexpectedly call you need not be ashamed of yourself.

Do not urge your friends to eat more than they desire, *nor apologize for your dinner.* If it is good enough for your family, it is good enough for your friends. If your cooking has been unsuccessful too many apologies do not improve it. Especially, do not offer apology for that which does not require it. It looks too much like fishing for compliments. It is not in good taste to crowd a table with a great variety of food.

I might have mentioned, that where fresh napkins are used at dinner, a piece of bread may be folded in each, and the napkins laid in the plates. Bread for dinner, as it is not to be eaten with butter should be cut in thick slices, and then cut in rather small pieces.

The extension table, like the one represented in the engraving, is the most desirable for the dining room. By the addition of leaves, this can be made as large as you wish for your room. Do not select a table with corners, but if you have it, and cannot do better, then be thankful for what you have. The dinner will taste just as well, even if the table on which it is placed does not quite suit you.

The white "French China" is the most economical for use, when it can be afforded. It is neat and delicate, and if any pieces are broken, there is no difficulty in replacing them. If it is "chipped," it shows but little, as it always remains white—unlike the common stone china. I prefer oval dishes for the meats and vegetables, to those that have sharp corners. They affect the eye more pleasantly, as the curved line is more graceful than the straight.

Do not, in going to the table or in leaving it, on any occasion send your guests in advance of you, as you would "show" a flock of turkeys, but yourself *precede* them. It is exceedingly awkward for a stranger to be thus thrust forward in another person's house.

(To be Continued.)

Preserving Fruits fresh in Glass without Corks.

To the Editor of the American Agriculturist:

In the July *Agriculturist*, you gave some timely and valuable suggestions respecting your own method of preserving fresh fruits. With regard to some of the details, my wife thinks she has "a more excellent way." Acting as her amanuensis, I will endeavor truly to "define her position." With us, the larger-mouthed glass bottles, *without corks*, are the cheapest cans. As our family is small, we get the quart bottles, chiefly. All you say about the preferableness of fruits in a fresh state, over those that are "preserved," is, with us, perfectly orthodox. Using, as we do, glass bottles, of course the fruit has to be cooked in a kettle, before it is put into the vessels in which we design to keep it. Respecting the pits of peaches and cherries, we have come to regard the flavor (hydrocyanic acid) that is imparted by their retention as abundantly compensating for the room they require. As with you, our method is to cook and sweeten as if for immediate table use.

When the fruit is cooked, being careful, if of the smaller sorts, not to cook too much—having previously put the bottles on the stove hearth where they could heat up gradually—close the doors and windows so that no cold current of air shall blow upon and break them, and fill them carefully while still remaining on the stove hearth. It is not necessary to put the bottles in water at all. With large mouthed bottles, and a fruit funnel, it is an easy matter to fill them. Now, *instead of a cork*, which is difficult to adjust nicely and quickly—have drilling or new cotton cloth all ready cut into round pieces, and amply large enough to come down over the rim of the bottle, and tie firmly with a cord. For cheapness, as a sealing wax, nothing is superior to the common *resin*—having a little tallow melted in, and thoroughly mixed with it. The dish containing this is already on the stove, so that it is melted and ready for use. As soon as a bottle is filled, put one of the pieces of cloth on the stove hearth and with an iron spoon dip on enough of the wax to coat over thoroughly—smoothing it down with the spoon, and immediately place the coated side down, directly over the mouth of the bottle. Press down firmly, tie, and with the spoon dip enough of the melted wax on the upper side of the cloth, to cover that also. Now, you have an air-tight bottle. Set in a cool place—we use the cellar—and the fruit will keep for years. When we used corks, we lost some, but have not in this way. Late in the season, we use jars, and stone churns, even, for keeping larger fruits, as pears, quinces, &c., and with perfect success—when put up in this way.

One thing we have learned about tomatoes. Scald, so that the skin can be taken off, throwing away all the juice that escapes in this process. Stew in as large pieces as you can readily get into the bottle, and when cooked for use the following Winter or next Summer, you will find that you have "fresh tomatoes." Most people cook them too long, and put up too much juice with them. Self-sealing cans we have tried, but prefer the large open-mouthed bottles, even at the same price. Another advantage is—it is no trouble to open them for use. L. G.

Milan, O., July 8, 1858.

REMARK.—The above plan appears feasible and good—and we intend to try it—but shall continue to use the air-tight tin cans mostly, because we prefer to cook the fruit within them, in order to preserve its *flavor* as much as possible.—ED.

How to Preserve Papers.

The value of agricultural papers depends very much upon the use we make of them. The mere reading of them gives us a good many practical hints, and helps our cultivation, even if they are thrown among the waste paper. But there is better use you can make of them. An agricultural journal that is the exponent of the practice of the best farmers of the country, is to be regarded very much as a lawyer regards his reports of the courts. It is a monthly or weekly book of *cases*, to which the farmer has frequent occasion to refer in his own practice. The memory cannot retain everything at a first reading, and yet it will retain enough to give a clue to the information that is lacking. If this information is preserved in an accessible form, it will be frequently referred to in all doubtful cases.

It is some trouble to preserve the papers, and yet it can be done without a penny's expense to anybody. Of course it is the best way to patronize the bookbinder, if you are near the city, and have the means. But the great majority of our readers are at a distance from the village, and they know more about the raw material of sheep-skins than of using them after they are tanned.

Each *Agriculturist*, as it comes stitched, may be tacked on to its predecessor, and laid upon the shelf where it can be reached in any odd moment. Or they may be filed in order upon a thin slip of wood. A slip of maple or hickory, five-eighths of an inch square, and made smooth, will do. Make it four or five inches longer than the paper you wish to file, so as to leave a convenient handle at the bottom of the page. Bore holes with a gimlet or awl, so as to insert two or three straight bits of wire, at distances convenient to hold the papers fast. The wires should be about three inches long, and sharpened at one end. When the paper is read it can be filed upon these for a whole year. At the close of the year when the Index comes, the volume can be sent to the binder's, or be bound with stout twine and wrapping paper at home. A series of these home-bound volumes of a good agricultural journal will be a treasure in any farmer's family. Preserve the papers.

"Cholagogue" for Ague-and-Fever.

Who has not heard of the widely advertised "Indian Cholagogue," of which some millions of bottles have been sold at the West as a specific for fever-and-ague. (The word *cholagogue* literally signifies a remedy for derangements in, or rather a surplus of the bile). Well, here is a prescription for making a cholagogue which has been much used by friends and acquaintances at the West, for fever-and-ague, and numerous bilious complaints—with the happiest results, they all say. We suspect that if not the same as the so-called "Indian Cholagogue," it is quite as good and vastly cheaper. To make it:

Take 24 grains of Sulphate of Quinine; 1 tablespoonful of Barberry Bark: 1 tablespoonful of Turkey Rhubarb, powdered; 1 ounce of Wintergreen; 1 pint of Molasses, and 1 pint of good Brandy. Put these all into a bottle, and shake well. Take a tablespoonful three times a day, say one hour before each meal....This is a tonic (or strengthening) medicine, and may be very good. Indeed, we will about warrant it to cure, provided the person will eat *broiled* beef-steak or roast beef in fair quantities, and sparingly of vegetables, remembering to have all the food made very fine before swallowing, as recommended for children on page 214 of last number. Take notice that we do not warrant the medicine without the dieting, while the dieting will go a great way towards a cure without the medicine. If you want any kind of Cholagogue, however, try that recommended above, and save the dollars now paid out for the patent article.

The Very Best Washing Recipe.

Put the clothes in water, to which a little soap has been added, and soak them over night, or longer. This is one great "secret" of the success of nine out of ten of the washing "fluids," mixtures," and "machines" which have been sold over the country for ten years past. They nearly all prescribe previous soaking of the clothes. If people pursuing the old-fashioned mode of washing, will simply take the precaution to throw *all* the clothing to be washed into water ten or fifteen hours before beginning operations, they will find half the labor of rubbing and pounding saved, in most cases. Water is of itself a great solvent even of the oily materials that collect upon clothing worn in contact with the body—*but time is required to effect the solution.* Every one is aware of the effect of keeping the hands or feet moist for a few hours. The entire external coating of secretion is dissolved. The same effect is produced by soaking for a few hours garments soiled by the excretory matter of the skin.

A PIE PREPARATION AND A 'LAST' RESPONSE.—A horticulturist at Lafayette, Ind., advertised that he would supply all trees and plants, especially "pie-plants of all kinds." A gentleman thereupon sent him an order for "one package of custard-pie seed, and a few dozen of mince-pie plants." The gardener promptly filled the order by sending him four goose-eggs and a small dog."

"Cuffy, why don't you kick that dog?" "What am the use of kicking every cur what snarls at you? Don't you know dat am de way he wants you to bring him into notice?"

All curs do not walk on four legs.

Punctuality begets confidence, and is the path to honor and respect.

Vine Districts in Missouri.

Taking into account the climate, soil, and location of Missouri, we have long considered it as presenting many attractions to the emigrant, whether from the Eastern States or Europe. A correspondent of the New York Times gives some information respecting one branch of soil culture, which bears the marks of truthfulness and sincerity, and we make the following extracts: To the traveler entering Missouri from St, Louis, and traversing that part of the State south of the Missouri River, it presents itself as one of the most beautiful States in all the West. Following either the railroad to Jefferson City, or that already finished to the Pilot Knob Mountain, one enters a picturesque rolling country, with wooded valleys and clear dashing streams—the rivers skirted with immense forest trees, and the view constantly broken with deep dells or vine-topped hills, or broad rich intervals encircled by the luxuriant forest. In a Northerner's eyes, no doubt, it is the more refreshing after an experience of the grand monotony of the scenery of Illinois and Indiana. To hear that a country is a "country of vineyards," gives of itself a most pleasing picture. ....The culture of the grape is to become one of the most important industrial branches for Missouri—for the whole country, it is of great moment from other collateral considerations.

With reference to the capacity of the State for this branch of culture, Prof. Swallow, the State Geologist, is reported to have said, that "Missouri contains more good vine-land than all France." The business is now almost entirely in the hands of Germans, a most intelligent and thrifty class of people, who are deriving from it large profits. Some of the vine-land—passed over by the American pioneer for its unfruitfulness—they have bought even at 12½ cents an acre; generally they purchase it of the planters or proprietors for $1 an acre. Even the improved hill-tops, with wood cleared and soil broken, and a good eastern exposure, and sometimes with a planting on it, could be bought for $15 an acre. The German peasant comes in with a small capital of, say $300 to $400, builds his log-house and his wine-cellar, buys his cattle and his implements, and plants his vineyards—at the same time laying out some of his fields for common crops. For the first three years he lives on his farm, the sale of his wood and the like. By the fourth year his vines make a return, and even if the year be a bad one, are certain to pay the wages of his labor. After this, his average yield is at least 300 gallons an acre—worth from $300 to $375. It often reaches 1,000 gallons, at $1,000 to $1,250 in value. One man can work two or three acres easily, and often much more. If he hires labor, wages are from 6s. to $1 a day, or from $12 to $15 a month. Provisions are very cheap, so that the returns from this branch of culture must be among the most profitable of any to be obtained from agricultural industry through the whole country. After innumerable experiments with vines from all vine-growing countries, the Missouri cultivators have settled down on certain native grapes, and from these they have produced some new varieties.

The favorite native grapes are the Catawba, Isabella, and Virginia seedling. Of new and old varieties, there are now some fifty in Missouri. The wines made are much lighter than the Ohio wines—one (red) from the Virginia seedling resembling Burgundy, and another (white) being much like a common Rhine wine. In some portions of the south of Missouri, the culture has fairly changed the face of the country, covering the slaty and barren hill-tops with the beautiful green of vineyards, and giving the air of old cultivation to a new district. One village alone (Hermann), with some 12,000 German inhabitants, produced last year 80,000 gallons of wine. There are certain great advantages to Missouri in a German agricultural population, which the people are more and more appreciating.

The German, though not so good a pioneer as the American, is in some respects a *better* farmer. He is more thorough and thrifty, and he especially has the distinguished German peculiarity of a love of beauty, and, perhaps in consequence, a greater affection for home. You will notice in Missouri the German farm-house nearly always with a certain air of taste about it, which you do not see about the American. Great trees are left standing near it; flowering shrubs are planted in the yards, and vines on the piazza, and flower-beds under the windows. It is observed, too, that the German does not so quickly sell, and holds by the old homestead longer—thus forming a more settled class at once among the ever-moving American pioneers—and so presenting a state of society more attractive to the Northern emigrant....

Fruit-Growers' Society of Western New York.

The Summer meeting of this society was held at Rochester, commencing on the 30th of June and continuing for two days.

The exhibition of strawberries was very large, with a good show of cherries, and a few foreign grapes.

After a free and full discussion of the merits of the strawberries most prominently before the public, such as Peabody's Seedling, Burr's New Pine, Hooker, Wilson's Albany, Hovey's Seedling, Triomphe de Gand, &c. A list was handed in by each person present of the varieties he would recommend for market, and for amateur cultivation. The result was as follows, omitting those which received less than four votes:

FOR MARKET.		FOR AMATEURS.	
Early Scarlet	6	Hooker	12
Wilson's Albany	7	Burr's New Pine	7
Crimson Cone	7	Early Scarlet	7
Genesee	5	Wilson's Albany	4
Hovey	4	Hovey	4
Hooker	4		

Peabody's received two votes for amateurs, and one for market culture, while the berry which at one time bore off the palm over Hovey, viz., M'Avoy's Superior, received but two amateur votes. Longworth's Prolific had two votes for market and one for amateur cultivation....Most of those present agreed that early Spring planting was best, and that there was little danger of manuring the ground too much, although a few had succeeded on poor soil.

The diseases of the Peach and Cherry were next discussed, but no satisfactory conclusions arrived at, other than that the curl of the leaf was more observable upon the outside rows, especially upon the northeast side, suggesting the necessity of protection.

Summer pinching of the Pear was recommended as needful to secure a proper form, check the leader, or rampant side branches, and to induce fruit buds.

The curculio remedies were canvassed; and the most feasible method of saving a crop of Plums, or nectarines, appeared to be jarring the trees every day while the fruit was setting, for about a week, catching the insects in sheets spread upon the ground. When they begin to grow scarce, every other day will answer, and finally, once or twice a week. In this way, several gentlemen present had secured a full crop of fruit.

Several members then engaged in a discussion, relative to the Summer pruning of the Grape-vine. The general conclusion seemed to be, that Summer pruning was not sufficiently attended to. Mr. Salter being called upon, detailed his mode of pruning, at length. His plan is quite similar to the *Spur system*, briefly alluded to in our last number, page 212 (fig. 3), and described more minutely in the *Agriculturist* of last November, vol. XVI, page 260.

The Society finally adjourned, to meet again in Rochester next Autumn—time not named.

☞ Note the invitation of Seymour & Co., in the advertising columns. If you call on them you will See more than is promised, and taste also. We called on them last year, and shall do so again this year. D. V

[*Official Announcement.*]

American Pomological Society.

The Seventh Session of this National Institution will commence at Mozart Hall, 663 Broadway, in the City of New York, on Tuesday, the 14th day of September next at 10 o'clock, A. M., and will be continued for several successive days.

Among the objects of this meeting are the following: To bring together the most distinguished Pomologists of our land, and, by a free interchange of our experience, to collect and diffuse such researches and discoveries as have been recently made in the science of Pomology—to hear Reports of the various State Committees and other district associations—to revise and enlarge the Society's catalogue of Fruits—to assist in determining the synonyms by which the same fruit is known in America or Europe—to ascertain the relative value of varieties in different parts of our country—what are suitable for particular localities—what new sorts give promise of being worthy of dissemination—what are adapted to general cultivation; and, especially, to concert measures for the further advancement of the art and science of Pomology.

The remarkable and gratifying progress which has recently been made in this branch of rural industry, is in no small degree attributable to the establishment and salutary influences of our Horticultural and Pomological Societies, the proceedings of which have been widely promulgated by the Press. A great work has been already performed, but a greater still remains to be accomplished. It is, therefore, desirable that every State and Territory of the Union, and the Provinces of British America should be ably and fully represented in this Convention, and the Pomological, Horticultural, and Agricultural Societies, within these limits, are hereby requested to send such number of delegates as they may deem expedient. Nurserymen, Fruit-growers, and all others specially interested in Pomology, are also invited to be present, and to participate in the deliberations of the meeting.

Held, as this Assembly will be, in the great commercial emporium of our country, easily accessible from all parts of this continent, and at the same time when the Convention of the Editors of the Agricultural Press will be in session, it is anticipated that the attendance will be larger than on any former occasion, and the beneficial results proportionably increased.

In order to increase as much as possible the utility of the occasion, and to facilitate business, members and delegates are requested to forward specimens of fruits grown in their respective districts, and esteemed worthy of notice; also papers descriptive of their mode of cultivation—of diseases and insects injurious to vegetation—of remedies for the same, and to communicate whatever may aid in promoting the objects of the meeting. Each contributor is requested to make out a complete list of his specimens, and present the same with his fruits, that a report of all the varieties entered may be submitted to the meeting as soon as practicable after its organization.

For the purpose of eliciting the most reliable information, the several Fruit Committees of States, and other local associations, are requested to forward to Hon. Samuel Walker, General Chairman of the Fruit Committee, Roxbury, Mass., or to P. Barry, Esq., Secretary of the Society, Rochester, N. Y., a definite answer to each of the following questions, at an early date, and prior to September 1st:

What *six*, *twelve*, and *twenty* varieties of the apple are best adapted to a family orchard of *one hundred* trees, and how many of each should it contain? What varieties, and how many of each, are best for an orchard of *one thousand* trees, designed to bear fruit for the market?

What *six* and *twelve* varieties of the Pear are best for family use on the Pear stock? What varieties on the Quince stock? What varieties, and how many of each of these, are best adapted to a Pear orchard of *one hundred* or of *one thousand* trees?

What are the *six* and *twelve* best varieties of the Peach for a family orchard? What are the best varieties, and how many of each, are best adapted to a Peach orchard of *one hundred* or of *one thousand* trees?

Answers to these questions should be made from reliable experience, and with reference to the proximity or remoteness of the market.

Societies will please transmit to the Secretary, at an early day, a list of the Delegates they have appointed.

Gentlemen desirous of becoming members can remit the admission fee to Thomas P James, Esq., Treasurer, Philadelphia, who will furnish them with the Transactions of the Society. Life Membership, twenty dollars; Biennial, two dollars.

Packages of Fruits may be addressed to Wm. S. Carpenter, Esq., 468 Pearl street, N. Y.

MARSHALL P. WILDER, President.
Boston, Mass.

P. BARRY, Secretary,
Rochester, N. Y., July 1st. 1858.

Thomas Paine.—J. S. M., Lawrence, Mass., criticises the brief paragraph put in to fill out page 147 of May number. We agree with our correspondent in his opinion that "few men have been more wronged and belied than this distinguished individual." We should probably disagree with him as to the parties that have done the lying—his friends or his enemies. No man ever had greater occasion to pray to be delivered from his friends. The fact is, Thomas was bad material to make a saint out of, and the sooner that endeavor is given over the better

OUR BASKET

Into which are thrown all sorts of paragraphs—such as NOTES *and* REPLIES *to* CORRESPONDENTS, *with Useful or Interesting Extracts from their Letters, together with Gleanings of various kinds from various sources.*

Turnips, Varieties, Keeping and Feeding.—A Putnam County reader inquired what variety of turnips our Cattawissa subscriber raised 500 bushels per acre, as detailed on page 197; how kept and fed, &c. We forwarded his queries, but received the reply too late for the preceding pages. It is in substance as follows: "The seed sown is of the flat blue-top (purple-top,—ED.) and the blue-top, *round*, the latter yielding the most largely; the feeding and keeping quality the same. In large heaps they heat and spoil; so only 20 to 30 bushels are put in a heap, and coated with straw or turnip tops, to keep out the dirt which is thrown on to the depth of some six inches. The soil they grow in is used for this purpose. As wanted for feeding, 30, 60, or 100 bushels at a time are taken out to a warm cellar. The little frost that may be in them comes out, leaving them in nice condition for milch cows....In feeding, about ½ bushel per cow is thrown into an oak plank trough, chopped fine, and sprinkled with 6 or 8 quarts of meal of corn and cobs ground together. This divided into two messes constitutes, with some 20 lbs. of hay, the daily food of a cow, and keeps her in good condition with a full flow of rich milk throughout the Winter, leaving her in excellent order as a Summer cow, when grass comes. Every drop of urine and solid excrement is saved, and a large amount of rich manure is thus secured—*a very important consideration with every farmer.*

Manure for Turnips.—O. O. Stewart, Lincoln Co., Me. With the manures you have, there need be no longing for "patent manures," which are often too much like patent medicines—of very little practical use. Mix equal quantities of your barn yard or stable manure and muck together, and add a bushel of dry lime to a double load and you have a first rate turnip grower. The ashes, may very well be applied to the young plants, as they begin to make their appearance in the drill. Besides being a good fertilizer, ashes tend to keep away the garden flea. Put in rows 18 inches apart and thin to 10 inches or a foot in the row. The hen manure needs little preparation, but is perhaps best if pulverized, mixed with a quantity of dry muck or earth, and sown in the drill with the seed.

Lasalle County, Ill.—S. Martin writes, July 10th: "We are well satisfied with our prospect of a good corn crop—*no weeds* and large corn....King Philip corn silked out, and the Dent corn five feet high. Our corn was planted before the excessive wet weather came on and the rain being warm did not hinder our *good* seed from growing. There is plenty of poor corn here about. Cause: Some planted early, some late—just as it happened—and the weeds are now as tall as the corn....I improve my corn thus: I began by selecting the best ear I could find, and planting the kernels. The next year I selected the best from this year's seed, and so on yearly, and the crop grows better every year." (No doubt of it.—ED.)...."Seven acres of King Philip corn planted on sod are beginning to tassel....Winter wheat in this vicinity is rusting badly, and we fear the Spring wheat will be damaged....We suppose you had a happy time on the Fourth with friend Timothy Bunker, Esq., enjoying his turnips and ditches...." Sorry to say, not—see a preceding page.—ED.

Berries.—W. S. W., Barnstable Co., Mass. Our monthly "Kitchen Garden Calendar," and the berry articles appearing from time to time will give you the required information. See also the report of the Fruit Growers Convention of Western New-York, in the present number.

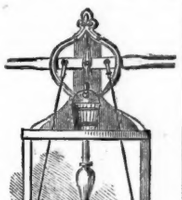
Berries from Seed.—H. T. Baldwin, McHenry Co. Ill.—Mash the well ripened fruit of Strawberries, Raspberries, Blackberries, Currants, Gooseberries &c., and wash out the seeds. Dry them thoroughly and put away in a cool, dry place till planting time in Spring, when they may be sown like ordinary vegetables, covering lightly with well pulverized soil. Of course the productions will be of various kinds, and of different degrees of goodness.

Evergreens from Seed.—H. W. Myers, Summit Co., O., and others. On page 13 of the January *Agriculturist* for 1857, we gave minute directions for raising White Pine, Arbor Vitæ, and other evergreens from seed. White Pine Seed, as well as others, is to be gathered in the Autumn when the cones are ripe, and planted in April or May in a light leaf-mold soil.

Currant Bush Caterpillars.—W. H Quinn, Rensselaer Co., N. Y. Hand-picking is the best means of exterminating these when once at work on the bushes. To prevent their attacks, sprinkle or syringe the bushes every few days, when the *leaves begin to open*, with soap suds, or the whale-oil soap mixture, described on page 149, May *Agriculturist*.

Canker Worm, Borer, &c.—Jas. S. Barker, Hancock Co., Ill. Tar applied direct to the body of a tree is injurious. You may, in a measure, prevent the ascent of the female canker moths by binding on a newspaper or piece of muslin and coating it with tar. You will see a more effectual method described on page 244 of this month's *Agriculturist*....The insect you found eating off the twigs, a sample of which you inclosed, appears to be a borer—not the real apple borer which works in the body of the tree, but more allied to the locust borer spoken of on a preceding page.

Edney's Pump.—We have several inquiries respecting this pump, and present herewith an engraving of a small working model which we have examined. It appears to be well adapted to forcing water to great heights. The forcing apparatus is placed at the bottom of the well. The piston works horizontally, and both ways. The long rods terminate in small chains, passing over pullies on each side of the pump. They connect at the top with the double-arm lever. By raising and depressing this lever alternately, the piston is moved in contrary directions, and the water is forced up through a central pipe, extending to the top of the well, or it may be carried any distance above the operators. We do not see why this arrangement is not as simple, cheap, and effective as anything yet proposed for accomplishing the same end.



Ditching Machines.—A. Rust, St. Clair, Mich. We know of no ditching machine that has stood the test of a thorough trial on a variety of soil. Give us a good Irishman, with his spade and pick, and if the ground be hard, let him have the assistance of a surface and subsoil plow.

Wild Winter Cherries.—L. Martin, Lasalle Co., Ill. It is quite likely you have one variety of the Winter Cherry, as it grows wild over a large portion of the Western country. We consider it none the less valuable for this, but are glad to find, on our own soil, a variety of the *Physalis*, which, to our taste, is quite equal to that brought from Europe, and cultivated with much care by many persons. Ours has this advantage, viz.: it ripens much earlier than the foreign variety. Most of the American sort that we sent out was the wild, improved by several years' cultivation. But the wild plant yields a valuable fruit—the difficulty has been that people have not known that the berries were valuable for sauce.

Large Tulips.—Mrs. V. E. White, of Ohio Co., Va., in response to the challenge of E. Kalb, in the June *Agriculturist*, to produce a larger tulip than was there described, gives the measurement of a pink one she then had in bloom, measuring 3¾ inches in depth, 7¼ inches in diameter, upon a stem 26½ inches in length. She says: "Some of our early tulips, of which we have over twenty varieties, were larger than the above."

Candy-Tuft.—D. Colklessen, Washington Co., Md.—The plant you speak of as coming from seed sown as Candy-Tuft, is doubtless one kind of that flower. The seed was purposely sent out by us mixed, to give variety, some producing a white and others a purple bloom. On page 21 of the January number is an illustration of the plant in bloom, accompanied with a description.

Destroying Ants in the Garden.—"Amateur," of Chatham Co., Geo., in reply to an article under the above head in a former number of the *Agriculturist*, gives the following: "Thrust a cane or hoe handle perpendicularly into their mounds, and the ants, not liking the day light thus unceremoniously let in upon them, and the formation of a chasm into which they often tumble, to the imminent risk of breaking their necks, leave in disgust. Where this is not practicable spread raw cotton, finely fringed out over their haunts. They find it a difficult matter to pass through, or over it and leave as before."

Varieties of Grapes, Raspberries and Gooseberries, &c., for out-door Culture.—J. Keag, Bedford Co., Pa. These are very much a matter of taste among cultivators. We will recommend a few which have proved good, and which we have mainly planted. *Grapes:* Delaware, Rebecca, Diana, Catawba, Isabella, and Hartford Prolific, *Raspberries:* Fastolf, Red Antwerp, Allens (hardy) and Brinkle's Orange—(several others might well be recommended,) *Gooseberries:* Confining ourselves to native seedlings so that no danger need be apprehended from mildew—Mountain, Downing and Houghton's Seedling. Add a few choice strawberries and currants to your garden. More on this topic next month.

Direction of Grape Vine Rows, Books &c.—J. C. Messer, Lucas Co., O and L. D. J., Knox Co., Ill.—We prefer having grape vine rows run north and south, but should arrange them with reference to the locality. Persoz' culture of the vine is a very good little treatise, and the process recommended is doubtless mainly correct.

Mildew on Gooseberries.—J. P. Miller, Washington Co., Pa., asks why his gooseberries mildew, while those of a neighbor, purchased at the same time, of the same nurseryman, do not? We cannot answer. If the soil is the same the cause must lie in the treatment. Deep tillage and mulching the ground with straw or salt hay, is the best remedy for mildew. Suggestions on budding may be referred to at another time. Also on raising the box plant.

Tobacco Growing.—H. W. M., of Ohio, will find a full chapter on tobacco growing in the March *Agriculturist*, Vol XVI., page 54.

Cabbage Savoy.—Geo. P. Dorr, Jackson Co., Mich. This seed, sent out by us last Spring requires the same treatment every way as the cabbage, to which it is very closely allied. Cook it in the same manner.

Humbugs, Horticultural and otherwise—W. T. W., Queen's Co., N. Y. Beware of all these advertisements, whether of the "Celestial Rose," at $1 per seed, or $25 per potted plants; or, "New Hampshire Pine Apples," at a less price; or even that class, which, for merely a few postage stamps to pay return postage, you will be put in possession of an invaluable secret that will enable you to make lots of money easily. They are traps into which sensible people should no sooner fall than they would venture inside a mock auction shop.

Ringbone and Horse Books.—Wm. Wood, Clinton Co., Mich. Not knowing how bad a case of ring bone your horse has, or how it was induced, we can not venture an opinion as to its curableness. "Dadd's Modern Horse Doctor," for which you inquire, we can procure and forward you post-paid, for $1. It is a valuable work of its kind.

Garget in Cows.—The article on page 165 of the June *Agriculturist* has called out several remedies for this disease. C. I. French, of Bradford Co., Pa., finds the root of garget, or poke, cut up and given the cow, with meal or a spoonful of saltpetre in a mess, is a speedy cure....F. A. B., of Bristol Co., Mass., finds nothing equal to saltpetre, giving a teaspoonful at a time. Repeat the dose each day for several days, if a cure is not effected. J. Russell, Trumbull Co. O., draws out all the milk, and rubs the affected part thoroughly with hog's lard, or some other soft grease. He has never known it to fail when rubbed for a long time—say half an hour—and by next milking the cake has disappeared.

Poke Weed, or Garget.—*Phytolacca decandra*—S. R. Griggs, Washington Co., Vt., will be able to recognize this root from the following description: Root perennial, large and branching, somewhat like rhubarb, but of a light color, and strong to the taste. It throws up strong branches each year, some 5 to 8 feet high, which produce long racemes of dark purple berries, filled with juice. They are sometimes termed pigeon-berries. The root is poisonous, and so is most of the medicine we take. We have used it in cases of garget in cows with very good effect, boring a hole in a potato, and inserting a piece of the size of the finger. In obstinate cases we have known pieces inserted beneath the skin in the cow's bag or flank, near the affected part.

Defective Teats in a Heifer.—The heifer will probably give as much milk with three teats, as with four, if the lacteal vessels are in a healthy condition. If the defect has become chronic, and there is no swelling of the bag, we should attempt no remedy.

Bed-Bugs—Flies.—Is it *so*?—The papers are passing around the following. *Our* faith is weak, but here is what they say: "Recent experiments in more than one family have established the fact that the plant known to botanists as the Polygonum *hydropiper*, usually known as "water pepper," or "smart weed," which may be found in abundance along ditches, roads, lanes and barn yards, is an effectual and certain destroyer of the bed bug A strong decoction is made of the herb, and the places infested with the insect well washed with it. The plant may also with much advantage, be stuffed in the cracks and corners of the room.

Gophers *and* Ground Squirrels.—Such was the heading written for a Basket note on page 154 of May number. We did not notice that the printer put *or* for *and*, until our attention was called to it by P. Bayley, of Harrison Co., Mo. We did not intend to convey the idea that ground squirrels are the same animals as gophers. Mr. B. describes them thus: "The gopher in preparing his burrow raises a mound by the aid of a sack or pouch on each side of the neck. He subsists chiefly on roots as my garden can testify. There are several kinds of ground squirrels

here. One is grey, and almost as large as the grey squirrel of the woods. The others are smaller, somewhat resembling the chipmunk. They burrow in the ground, and may be drowned out by pouring water in their holes.

Boys' and Girls' Own Columns.

EDITOR UNWELL.—The Publishing Editor generally claims the Boys' and Girls' Columns for his own, and he has being saying all Summer that in August there would be few advertisements, and he would then have room to have a long chat with his large family of young readers. But, unfortunately, when he had just got the first 25 pages stereotyped, and had commenced these columns, he was taken suddenly, and somewhat severely sick, and could not even come to the city to look after these last 7 pages. —*Associate Editors.*

P.S.—As we go to press, we hear that Mr. Judd is convalescent, and hopes soon to be out.

Planting One's Name.

Do you understand the design of the above picture? If you examine it as carefully as little George and his Mother are doing, you will see that seeds have been sown in such a manner, that when the plants come up they form the letters of George's name. This is a very pretty exercise, and we think that not only the boys of our *Agriculturist* family would find it pleasant, but for the girls also it would prove as entertaining, and much more healthful than the "quilting," "piecing" and "crochet work" they spend so much time upon. Try it. By looking over the Calendar of Operations you will find that several kinds of seeds may yet be sown for this purpose especially such as lettuce, turnips, radishes, spinach &c. With a stick mark out lines to represent letters of your name, or the picture of a dog, or any thing else you please, and sow the seeds in the marks thus made.

What a Little Boy can do.

Did you ever see a "Break" on a canal? First a little water, a stream no larger than your finger, may work its way over the bank. This washes away earth, the stream widens, and in a single night the whole bank may wash away, stopping hundreds of boats perhaps for many days. Now, that little stream could have been stopped by a little boy if he had chanced to see it, and had foresight enough to do so. We have in our drawer the record of an incident which inculcates an important lesson.

A little boy in Holland was returning one night from a village to which he had been sent by his father on an errand, when he noticed the water trickling through a narrow opening in the dike. He stopped and thought what the consequences would be if the hole was not closed. He knew, for he had often heard his father tell the sad disasters which had happened from such small beginnings; how, in a few hours, the opening would become bigger and bigger, and let in the mighty mass of waters pressing on the dike, until the whole defense being washed away, the rolling, dashing, angry waters would sweep on to the next village, destroying life and property, and everything in its way. Should he run home and alarm the villagers, it would be dark before they could arrive, and the hole might even then be so large as to defy all attempts to close it. Prompted by these thoughts, he seated himself on the bank of the canal, stopped the opening with his hand, and patiently awaited the approach of some villager. But no one came. Hour after hour rolled by, yet there sat the heroic boy, in cold and darkness, shivering, wet and tired, but stoutly pressing his hand against the dangerous breach. All night he stayed at his post. At last the morning broke. A clergyman walking up the canal heard a groan, and looked around to see where it came from. "Why are you there, my child?" he asked, seeing the boy, and surprised at his strange position. "I am keeping back the water, sir, and saving the village from being drowned," answered the child, with lips so benumbed with cold that he could scarcely speak. The astonished minister relieved the boy. The dike was closed, and the danger which threatened hundreds of lives was prevented.—*Bond of Brotherhood.*

Tracing Paper.

In copying pictures and diagrams, it is often desirable to use transparent paper. This is placed upon the picture, or other objects, and the main lines are marked upon it with a pencil or point. The copy is then laid upon the new sheet and the principal points are pricked through the transparent paper. In this way a correct outline is obtained. A very little sweet oil, or a little butter rubbed over common white writing paper and then dried so as not to rub off, makes a very good tracing paper. You can lay this upon a picture, the leaf of a tree or other object, and mark the outlines, and then lay it upon a sheet of white paper and run the point of a sharp bodkin, or a darning needle over the marks with sufficient pressure to leave the outlines on your drawing paper.... Giles Farmin, of Houston Co., Iowa, writes to the young readers of the *Agriculturist:* "Instead of using an oiled or greased paper, take clear white tissue paper." [It can be got at the stores for a trifle, and very often comes with buttons or other purchased articles.—ED.] "Place this on the picture, and with a *soft* lead pencil draw upon the tissue paper the outlines of the thing to be copied. Turn this marked sheet over upon the drawing paper, and run the same pencil over the lines again but on the other side. Enough of the first markings will blot off upon the drawing paper to leave the outlines of a *reversed* picture, which can be filled out. The tissue paper is now marked upon the upper side also. Turn this over upon another piece of drawing paper and again run the pencil or any pointed instrument over the lines, and you will get an exact copy of the original picture or object, but not reversed this time." The above are good suggestions. We have before explained that engravers must cut their blocks *reversed*, so that they will print correctly when turned over upon the sheet. The engraver gets the reversed outlines upon his block very readily, by first laying his tracing paper over the drawing to be engraved, and marking the outlines upon the upper side, and then turning the traced paper over upon the block, which of course reverses the picture. He then marks through it upon the block, or if it be marked with a soft pencil the outlines may be blotted off upon the block by simply pressing upon it. The outlines being thus obtained the other parts are filled up with a drawing pencil.

Agricultural Exhibitions for 1858.

STATE.

Place.	*Where held*	*Date.*	
California	Marysville	Aug.	23—27
Missouri	St. Louis	Sept.	6—11
Amer. Pomol. Soc	New-York	"	—14
No. Western Virginia	Wheeling Island.	"	14—16
Vermont	Burlington	"	14—17
Ohio	Sandusky	"	14—17
New-Jersey,	Trenton	"	14—17
National Horse Show	Springfield, Mass.	"	14—17
Illinois	Centralia	"	14—17
Rhode-Island	Providence	"	14—18
Maine	Augusta	"	21—24
Pennsylvania	Pittsburg	Sept. 28	Oct. 1
Canada West	Toronto	" 28	" 1
Canada East	Montreal	" 28	" 1
Iowa	Oscaloosa	" 28	" 1
Michigan	Detroit	" 28	" 1
Kentucky	Louisville	" 28	" 2
Wisconsin	Madison	Oct.	4— 8
Indiana	Indianapolis	"	4— 9
New York	Syracuse	"	5— 8
New Hampshire	Dover	"	6— 8
Connecticut	Hartford	"	12—15
Alabama	Montgomery	"	18—22
United States	Richmond, Va.	"	25—30
Maryland	Baltimore.	"	26—29
Virginia	Petersburg	Nov.	2— 5
North Carolina	Raleigh	"	2— 6
South Carolina	Columbia	"	9—12

COUNTY FAIRS.

CONNECTICUT.

Middlesex	Middletown	Oct.	6— 8

INDIANA.

Fayette	Connersville	Sept.	7—10
Rush	Rushville	"	14—17
Hendricks	Danville	"	14—17
Jennings	Vernon	"	15—17
Washington	Salem	"	20—23
Spencer	Rockport	"	22—24
Marion	Indianapolis	"	22—24
Clark	Charlestown	"	22—24
La Porte	La Porte	Sept. 28	Oct. 1
Wayne	Richmond	" 28	" 1
Fountain & Warren	Attica	" 29	" 1
Delaware	Muncie	" 29	" 1
Sullivan	Carlisle	" 30	" 1
Kosciusko	Warsaw	Oct.	13—15

ILLINOIS.

St. Clair	Belleville	Sept.	1— 3
Pike	Pittsfield	"	8—10
Morgan	Jacksonville	" 28	Oct. 1
Montgomery	Hillsboro	" 28	" 1
Edgar (Wabash Valley)	Paris	" 28	" 1
Adams	Quincy	" 29	" 1
Tazewell	Tremont	Oct.	6— 7

IOWA.

Johnson	Iowa City	Sept.	15—16
Polk	Des Moines	"	14—16
Lee	West Point	"	15—17
Jefferson	Fairfield	"	22—23
Boone	Boonesboro	"	22—23
Decatur	Leon	"	29—30
Sac	Sac City	Oct.	4—
Henry	Mount Pleasant.	"	5— 6
Louisa	Wapello	"	6—
Van Buren	Keosauqua	"	13—14
Pottawattamie	Council Bluffs	"	14—15
Marion	Knoxville	"	21—22
Wapello	Ottumwa	"	22—24

MAINE.

Oxford	South Paris	Oct.	5— 7
Androscoggin	Lewiston	"	5— 7
West Somerset	Anson	"	6— 7
North Aroostook	Presque Isle	"	6— 7
York	Saco	"	12—13
North Somerset	Solon	"	13—14
North Penobscot	Lee	"	13—14

MASSACHUSETTS.

Middlesex North	Lowell	Sept.	15—17
Middlesex South	Framingham	"	21—22
Bristol	Taunton	"	22—23
Housatonic	Great Barrington	"	22—24
Worcester North	Fitchburg	"	24—
Hampden	Springfield	"	28—30
Norfolk	Dedham	"	28—29
Middlesex	Concord	"	29—
Plymouth	Bridgewater	"	29—30
Essex	Danvers	"	29—30
Worcester South	Sturbridge	"	29—
Worcester West	Barre	"	30—
Hampden East	Palmer Depot	Oct.	5— 6
Worcester	Worcester	"	6— 7
Franklin	Greenfield	"	6— 7
Barnstable	Barnstable	"	6— 7
Berkshire	Pittsfield	"	6— 8
Hampshire	Amherst	"	12—13
Nantucket	Nantucket	"	13—14
Hampshire, Franklin and Hampden		"	13—14

MICHIGAN.

Eaton	Charlotte	Sept.	8—30
Branch	Coldwater	Oct.	6— 8

MISSOURI.

N. E. District	Paris	Sept.	13—18
Howard	Fayette	"	14—18
Pettis	Georgetown	"	14—17
Lafayette	Lexington	"	14—18
N. W. District	St. Joseph	"	21—25
Saline	Miami	"	21—24
Boone	Columbia	" 30	Oct. 2
Central District	Booneville	Oct.	4—10

NEBRASKA.

Nemaha	Brownville	Oct.	13—16

NEW-HAMPSHIRE.

Sullivan	Charlestown	Sept.	15—16

NEW-JERSEY.

Burlington	Mount Holly	Oct.	5— 6

NEW-YORK.

Wayne Co. Horse Show		Aug.	5— 7
Saratoga	Mechanicsville	Sept.	7— 9
Madison	Morrisville	"	8—10
Monroe	Rochester	"	14—17
Albany	——	"	21—24
Oswego	Fulton	"	22—24
Queens	Flushing	"	22
Chenango	Norwich	"	23—25
Onondaga	Syracuse	"	22—23
Livingston	Geneseo	"	22—24
Washington	Salem	"	23—24
Yates	Penn Yan	"	23—24
Broome	Lisle	"	28—30
Oneida	Rome	"	28—30
Skaneateles	Skaneateles	"	29—
Orange	Montgomery	"	29—30
Greene	Cairo	"	29—30
Susquehanna Valley	Unadilla	"	29—30
Ontario	Canandaigua	Sept 29	Oct. 1
Seneca	Farmersville	Oct.	13—15
Montgomery	Fonda	"	26—

OHIO.

Ashtabula	Jefferson	Sept.	7— 9
Brown	Georgetown	"	7— 9
Fayette	Washington	"	7— 9
Hamilton	Carthage	"	7—10
Franklin	Columbus	"	8—10
Summit (Union)	Twinsburg	"	8—10
Clermont	Bantam	"	14—17
Portage	Ravenna	"	20—22
Clermont	Olive Branch	"	21—24
Geauga	Burton	"	22—24
Lawrence	Ironton	"	22—24
Lake	Painsville	"	22—24
Madison	London	"	22—24
Guernsey	Cambridge	"	23—24
Noble	Sarahsville	"	23—24
Marion	Marion	"	26—27
Warren	Lebanon	"	28—30
Green	Xenia	"	28—30
Knox	Mt. Vernon	"	28—30
Geauga (Free)	Claridon	"	28—30

Adams	West Union	"	28—30
Hardin	Kenton	"	29—30
Champaign	Urbana	Sept. 28	Oct. 1
Belmont	St. Clairsville	" 28	" 1
Crawford	Bucyrus	" 29	" 1
Richland	Mansfield	" 29	" 1
Columbiana	New Lisbon	" 29	" 1
Delaware	Delaware	" 29	" 1
Tuscarawas	Canal Dover	" 29	" 1
Highland	Hillsboro	" 29	" 1
Ross	Chillicothe	" 29	" 1
Van Wert	Van Wert	Oct.	5— 6
Mahoning	Canfield	"	5— 7
Lorain	Elyria	"	5— 7
Stark	Massillon	"	5— 7
Licking	Newark	"	6— 7
Fulton	Otakee	"	6— 7
Coshocton	Coshocton	"	6— 8
Seneca	Tiffin	"	6— 8
Union	Marysville	"	6— 8
Wood	Bowling Green	"	6— 8
Washington	Marietta	"	6— 8
Butler	Hamilton	"	6— 8
Summit	Akron	"	6— 8
Williams	Bryan	"	6— 8
Sandusky	Fremont	"	6— 8
Morgan	McConnellsville,	"	6— 8
Harrison	Cadiz	"	6— 8
Erie	Huron	"	6— 8
Clark	Springfield	"	6— 8
Defiance	Defiance	"	6— 8
Putnam	Kalida	"	7— 8
Hancock	Findlay	"	7— 9
Morrow	Mt. Gilead	"	13—15
Athens	Athens	"	14—15
Carroll	Carrollton	"	14—16
PENNSYLVANIA.			
Mercer	Mercer	Sept.	22—23
Bucks	Newtown	"	29
Tioga	Wellsboro	"	29—30
Lehigh	Allentown	" 28	Oct. 1
Chester	West Chester	Oct.	1— 2
Crawford	Conneautville	"	5— 7
York	York	"	6— 9
VIRGINIA.			
Brooke	Wellsburg	Sept.	22—24
WISCONSIN.			
N. W. Union	River Falls	Sept.	22—23
Richland	Richland Centre	Oct.	6— 7
Crawford	Seneca	"	12—13

Market Review, Weather Notes, &c.

AMERICAN AGRICULTURIST OFFICE,
NEW-YORK, July 23, 1858.

The Wholesale Produce Markets, since the date of our last review, have become decidedly firmer for the leading kinds of Breadstuffs. These have arrived less freely, especially during the past week, owing, in part, to a break in the Erie Canal, half a mile West of Schenectady, which would require some days to repair. The late advices from the interior, particularly from the Northwest, in reference to the extensive injuries sustained by the wheat and other crops, from insects, rust and blight, have tended to make receivers withhold their supplies, in anticipation of higher prices. The favorable market news from Europe has also tended to increase the firmness of sellers. The demand has been very good, for home use, and for export. Fresh ground flour has been sparingly offered, as have likewise ground lots of wheat and corn. The receipts, as well as the available supplies, of wheat and corn, consisted, for the most part, of unsound and inferior parcels. Really sound and desirable lots have been very difficult to procure. These circumstances have had the effect of restricting business. The rise in freights, (to 2s.@ 2s.1½d. on flour, and 7d. on grain, for Liverpool) has also checked operations. The annexed list of prices shows a general improvement in the value of the principal kinds of Breadstuffs, as compared with the rates current on June 23. Flour, Wheat and Corn, moreover, continue to favor sellers, and should it ultimately appear that crops have been as seriously damaged, as is now reported, it is quite probable that holders will be enabled to get even better prices. At present, it is undoubtedly true, that the crop accounts are gloomy enough, so far as small grain is concerned. A panic evidently prevails upon the subject throughout the country. We have no doubt that immense damage has been done to wheat and oats, that many fields which promised well a few weeks ago will not be worth the harvesting, and that others will not give half of an average yield; still we think that the result, taking the country as a whole, the crops will be better than the majority of people now anticipate. We have passed through such panics before, and this has been our invariable experience It ought to be understood that a part of the newspaper rumors of "tremendous losses of crops," are actually manufactured by unscrupuleus persons who have old stock on hand which they wish to raise the price of....Cotton has been more sought after and prices have advanced. Our available supply is 61,706 bales, against 40.926 bales same period last year. The receipts at all the shipping ports, to latest dates this season, have been 3,030,120 bales, against 2,886,917 bales to the corresponding period of last season. The total exports from the United States so far this season have been 2,482,054 bales, against 2,191,332 bales to the same date last season. The total stock on hand and shipboard in all the shipping ports, at the latest dates, was 189,992 bales, against 118,245 bales at the same time last year. The stock in the interior towns at the latest dates was 35,303 bales, against 22,317 bales at the corresponding date a year ago....Provisions have been in good demand, at strengthening rates, with reduced supplies available....Hay and Hops have been freely offered and purchased at unchanged figures. The new hay now coming in, arrives in very good condition, and sells, for city use, for as much as old hay. This is rarely the case on the first appearance of new in our markets. Old hay is, of course, almost exclusively what shippers buy. They do not like to purchase new for shipment, so early, as they do not consider it a safe commodity to put on shipboard....Hemp and Grass seeds have been very sparingly dealt in....Rice has been in active request, in part for export, at buoyant prices....Wool has not been very brisk, in this market. Buyers have been generally engaged in purchasing supplies of the new clip in the interior, where from the active competition that has been experienced, prices have advanced over the opening rates. The receipts, here, are now increasing steadily, and in the course of a month, a good supply is looked for. At present, the stock of domestic Wool in market is unusually light, and is quite stiffly held....Tobacco is quiet, yet steady....Other articles of produce have presented no noticeable variation from the previous month.

CURRENT WHOLESALE PRICES.

	June 23.	July 23.
FLOUR—Com'n to Extra State	$3 80 @ 4 05	$4 10 @ 4 40
Common to Fancy Western	3 80 @ 4 15	4 05 @ 4 35
Extra Western	4 10 @ 7 00	4 20 @ 7 00
Fancy to Extra Genesee	4 25 @ 6 50	4 40 @ 6 50
Mixed to Extra Southern	4 50 @ 7 50	4 65 @ 7 50
RYE FLOUR—Fine and Super.	3 60 @ 3 37	3 00 @ 3 60
CORN MEAL	3 50 @ 3 90	3 65 @ 4 25
WHEAT—Canada White	1 02 @ 1 15	1 05 @ 1 12
Western White	1 00 @ 1 25	1 03 @ 1 30
Southern White	1 15 @ 1 31	1 15 @ 1 43
All kinds of Red	80 @ 1 10	80 @ 1 30
CORN—Yellow	77 @ 79	89 @ 95
White	75 @ 78	92 @ 95
Mixed	70 @ 71	67 @ 85
OATS—Western	45 @ 46	46½@ 47¾
State	44 @ 45	45½@ 46½
Southern	34 @ 39	32 @ 40
RYE	71 @ 71½	69 @ 70
BARLEY	50 @ 60	55 @ 62½
White Beans	1 06¼@ 1 12½	90 @ 1 15
Black-eyed Peas, per 2 bush	3 37½@ 3 50	3 37½@ 3 50
Hay, in bales, per 100 lbs	60 @ 70	40 @ 65
COTTON—Middlings, per lb	12¾@ 12½	12¾@ 12⅞
RICE, per 100 lbs	3 00 @ 3 75	3 00 @ 3 75
HOPS, per lb	4½@ 7	5 @ 7
PORK—Mess, per bbl	@15 50	17 12½@17 25
Prime, per bbl	13 75 @13 50	13 95 @14 00
BEEF—Repacked Mess	12 00 @13 50	11 50 @13 50
Country mess	10 75 @11 50	10 75 @11 50
HOGS, Dressed, per lb	5 @ 6	5¾@ 7
Lard, in bbls. per lb	10¾@ 11	11 @ 11¾
BUTTER—Western, per lb	10 @ 17	11 @ 17
State, per lb	12 @ 22	12 @ 22
CHEESE, per lb	4 @ 8	4 @ 8
EGGS—Fresh, per dozen	10 @ 12½	16 @ 17
FEATHERS, Live Geese per lb.	40 @ 50	41 @ 50
SEED—Clover, per lb	7 @ 7⅞	7¾@ 8
Timothy, per bushel	1 75 @ 2 00	1 75 @ 2 00
SUGAR, Brown, per lb	5 @ 7½	5¾@ 8½
MOLASSES, New-Orleans, prgl	36 @ 37	40 @
COFFEE, Rio, per lb	9¾@ 11⅜	9¾@ 11¾
TOBACCO—Kentucky, &c. pr lb	6¾@ 16	6¾@ 15
Seed Leaf, per lb	9 @ 35	9 @ 35
WOOL—Domestic fleece, per lb.	27 @ 45	27 @ 46
Domestic, pulled, per lb	25 @ 33	25 @ 38
HEMP—Undr'd Amer'n pr ton	110 @125	110 @125
Dressed American, per ton	170 @185	170 @185
TALLOW, per lb	9¼@ 9¾	9¾@
OIL CAKE, per ton	31 50 @37 50	30 00 @37 50
POTATOES—Norfolk, per bbl		2 50 @
Long Island, per bush		75 @ 1 00
TURNIPS—Rutabagas, per bbl.		1 25 @
BEETS, per 100 bunches		2 50 @ 3 00
ONIONS, per bbl		2 25 @ 2 50
CABBAGES, per 100		2 00 @ 3 00
CUCUMBERS, per bbl		2 00 @ 2 50
SQUASHES, per bush		1 00 @
APPLES—Charleston, per bbl.		4 00 @ 4 50
Norfolk, per bbl		4 00 @
PEACHES Charleston and Norfolk, per bushel box		2 00 @ 5 00
RASPBERRIES—lge, pr 100 bkts		7 00 @ 8 00
BLACKBERRIES, pr bush		5 00 @
HUCKLEBERRIES, per bush		4 00 @
CURRANTS, per lb		6 @ 7
POULTRY—Fowls, per lb	14 @ 15	15 @
Chickens, Spring, per pair	50 @ 75	37 @ 63
Ducks, per pair	75 @ 1 25	62 @ 1 00
Turkeys, per lb	15 @	15 @

Total receipts and the total sales of Breadstuffs for 26 business days, ending with to-day, and comparison with 24 business days the previous month:

RECEIPTS.	Flour.	Wheat.	Corn.	Rye.	Barley	Oats
24 bus. days *last* mon.	423,578	1,367,830	993,125	30,850	2,100	209,450
26 bus. days *this* mon.	297,967	883,358	360,216	19,615	610	119,785

SALES.	Flour.	Wheat.	Corn.	Rye.	Barley
24 business days *last* month,	415,100	1,634,000	847,000	76,500	37,500
26 business days *this* month,	317,400	1,212,250	758,875	61,700	1,900

The following is a comparative statement of the exports of the leading kinds of Breadstuffs from the port of New York, from January 1 to July 19, both days included:

	1857.	1858.
Wheat Flour, bbls.	479,585	818,078
Rye Flour, bbls.	2,652	3,258
Corn Meal, bbls.	31,567	41,006
Wheat, bush.	1,062,567	2,330,983
Corn, bush.	1,533,129	1,236,804
Rye, bush.	81,446	

The following is a statement of the exports of the leading kinds of Breadstuffs, from the Atlantic ports of the United States since Sept 1, 1857:

To Great Britain and Ireland.

From	To Date.	Bbls Flour.	Bush. Wheat.	Bush. Corn.
New York	July 16, 1858	686,949	4,821,311	1,709,107
New Orleans	July 3, 1858	268,735	532,036	841,793
Philadelphia	July 6, 1858	89,634	160,977	460,739
Baltimore	July 8, 1858	91,572	204,238	250,197
Boston	July 9, 1858	3,667		8,926
Other Ports	July 2, 1858	22,591	128,597	3,920
Total from Sept. 1, 1857,		1,163,148	5,847,159	3,274,676
To about same period, 1857,		846,250	7,253,440	4,604,491
To about same period, 1856,		1,483,578	5,911,716	6,342,660
To about same period, 1855,		139,922	202,875	6,049,460

To the Continent.

From New York to June 22, '58	99,151	115,782	10,651
From othe ports to latest date	160,407	141,527	6,030

Chicago Breadstuff Trade Statistics, Jan. 1 to July 10.

	1857.		1858.	
	Receipts.	*Exports.*	*Receipts.*	*Exports*
Flour, bbls.	112,846	70,879	234,247	191,298
Wheat, bush.	1,820,044	1,719,904	5,379,094	4,630,193
Corn, bush.	3,304,224	2,913,469	4,424,367	2,630,773
Oats, bush.	283,484	139,511	1,390,510	1,136,307

Stock of Breadstuffs in Store in Chicago July, 10.

Flour, bbls.	5,750	Corn, bush.	527,348
Wheat, Spring, bush.	882,241	Oats, bush.	84,303
Wheat, Red, bush.	6,815	Rye, bush.	1,200
Wheat, White, bush.	600	Barley, bush.	11,297

Shipments of Breadstuffs from Milwaukee, each season, to July 12.

	1857.	1858.
Flour, bbls.	125,355	171,932
Wheat, bush.	1,236,430	1,897,499

N. Y. LIVE STOCK MARKETS—BEEVES.—Receipts for five weeks ending July 21, were 18,155, or 2,561 more than during the five weeks preceding. Receipts and variations were, for week ending June 23, 4,503, averaging 1¼c. decline; June 30, 3,041, at ½c. decline; July 7, 3,374, at ½c. advance; July 14, 3,958, at ½c. decline; July 21, 3,279, at ½c. advance, making a decline of 1½c. during the month....July 21, prices ranged on estimated dressed weights, as follows: First quality, 9c. @ 9¼c.; Medium quality, 8c. @ 8¼c.; Poorest quality (of which there was some *very* poor), 6c. @ 7c. Average of all sales. 8¼c.

VEAL CALVES have been in less supply for the past five weeks, the receipts footing up but 3,547 head. They are now selling at 5c. @ 6c. ℔ lb gross weight. A few of the finer bring 6¼c.

SHEEP AND LAMBS.—Receipts have increased largely, the numbers for the past five weeks being 50,527 against 30,850 for the previous five weeks. Prices are low, varying from 3½c. to 4c. ℔ lb. for sheep, live weight. A very few of the best bring 4¼c. Lambs are worth 6c. to 7c., and if very fat, 8c. ℔ lb. gross.

HOGS.—Arrivals have been less free, being only 24,500 for the five weeks just closed. Prices have advanced 1c, ℔ lb. gross weight, selling readily at 5½c. @ 5¾c. live weight, for corn-fed hogs.

THE WEATHER has been very warm during most of the past month, the mercury rising above 95° on several successive days, and at one time reaching 98° in the shade. Frequent showers during such excessive heat has kept vegetation fresh, and in rapid growth. Hay and grain have mainly been secured in good order, and the crop is fully an average one in this region and throughout the country. Other crops promise well....Our WEATHER NOTES, condensed, read: June 23 to July 2, a heated term of cloudless sunshine, the mercury reaching 98° in the shade on the 26th and 28th, and near that point on several other days: succeeding this we had heavy showers through July 3rd, and till M. on the forenoon of the 4th; 5 to 9 clear and very warm, affording a fine opportunity for farmers to finish their hay and early grains; 10, cloudy; 11 and 12, clear and warm—96° on 11th, and heavy wind in the afternoon; 13, cooler, with very heavy noonday shower, settling into a steady rain extending to the 14th, which continued cloudy; 15 to 17, clear and warm; 18, cloudy A. M., heavy showers P. M.; 19, clear and fine; 20, cloudy A. M., showers P. M., and during night; 21, mostly cloudy, with thunder shower at night; 22 and 23, clear and warm.

☞ **The actual circulation of the Agriculturist to regular subscribers, is believed to be much larger than that of any other Agricultural or Horticultural Journal in the world.**

Advertisements.

Advertisements to be sure of insertion must be received at latest by the 15th of the preceding month.

TERMS—(invariably cash before insertion):

FOR THE ENGLISH EDITION ONLY.

Twenty-five cents per line of *space* for each insertion. About 9 words make a line, if undisplayed.
One whole column (145 lines) or more, $30 per column.
☞ Business Notices *Fifty* cents per line.

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Thirty-one cents per line; $38 per column.
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Farm Produce of all Kinds
Sold on *Commission*, such as Flour, Butter, Cheese, Lard, Provisions of all kinds, Grain, Eggs, Poultry, Game, &c. &c.
HAIGHT & EMENS, 226 Front-st., New-York.
Refers to the Editor American Agriculturist.
R. H. Haydock, Cashier Market Bank, New-York.

1842. THE FLUSHING FEMALE COLLEGE, at Flushing, L. I., has just closed its Sixteenth year. It will re-open on the second Monday (13th) of September. For circulars address the President.
Rev. W. H. GILDER.

THE MYSTERIES OF BEE KEEPING EXPLAINED will be sent to any address by mail *free* of postage for one dollar. Address M. QUINBY,
St. Johnsville, Montgomery Co., N. Y.

MICROSCOPES.

No. 101 French Microscope, 6 inches high, one lens, power 35 diameters $2.00
No. 102 French Microscope, 7½ inches high, two lenses power 30 and 60 diameters $3.00
No. 103 French Microscope, 7½ inches high, three lenses power 20, 60 and 100 ..... $5.00
Microscope No. 101 can be sent by mail by remitting *Three Dollars*. We have a large assortment of Microscopes of every description varying in price from $2, upwards. Also Microscopic objects in great variety. For further particulars see our Catalogue. McALLISTER & BROTHER,
(Established 1796.)
728 Chestnut-st., Philadelphia.

McALLISTER'S Priced and Descriptive Catalogues (108 pages, 200 Illustrations) furnished *gratis* and sent by mail *free of charge* to all parts of the United States.

"ORANGE COUNTY FARMER"

grateful for past favor, renews the offer of his services as a Speaker at Fairs, and as a Lecturer before Lyceums, on

"HORTICULTURE," "SCIENCE OF MAKING HOMES HAPPY," "TRUTH," "CHARITY" and "FAITH."

Sample pamphlets and references furnished.

"We know of no better treat the President of a Society can furnish than the securing of 'The Orange County Farmer,' to deliver the address, as he is Humorous, forcible and Practical,"—signed by numerous Agricultural officers.

Terms twenty dollars for each effort.

Address JAMES O. MILLER, Montgomery, Orange Co., N. Y

PEARS! PEARS!!

FIELD'S PEAR CULTURE, Now Ready!

A COMPLETE MANUAL for the cultivation of the PEAR TREE.

The causes of failure pointed out, and the successful method given.

THREE HUNDRED PAGES, AND ONE HUNDRED AND FIFTEEN ENGRAVINGS.

PRICE 75 CENTS, sent by mail postage paid on receipt of price.

A Catalogue of more than one hundred Agricultural Books sent to all applicants.

A. O. MOORE, Agricultural Book Publisher, 140 Fulton-st., New-York.

The Great Book on Architecture.

BROWN'S

Carpenter's Assistant,

Containing a succinct account of Egyptian, Grecian and Roman Architecture. Also, a Description of the Tuscan, Doric, Corinthian and Composite Orders, together with Specifications, Practical Rules and Tables for Carpenters, and a Glossary of Architectural Terms; including a Complete Treatise on Practical Stair Building.

ILLUSTRATED WITH 200 PLATES.

Revised, improved and enlarged, with additions on RURAL ARCHITECTURE. Embracing Plans, Elevations, Grounds, &c., of Farm Buildings,

COTTAGES AND VILLAS,

Including new Designs for Church Edifices. By Lewis E. Joy, Architect. Twenty-first Thousand, New Edition, Revised and Corrected. Large quarto, Sheep, marble edges. Price $5.

Sold by all booksellers. Sent carefully by mail, postpaid, on receipt of price.

RUDD & CARLETON, Publishers and Booksellers, No. 310 Broadway, New-York

CLERGYMEN, TEACHERS, MECHANICS, CLERKS and others, will find the offers made by THE AUBURN PUBLISHING CO., for obtaining subscribers for their new and superior SUBSCRIPTION BOOKS, very liberal and worthy of their prompt attention; as they will, according to their ability, receive from $800 to $1,200, per year, and incur no risk. For circulars and full particulars, address

E. S. STORKE, Agent, Auburn, N. Y.

Notice.

We again invite all persons who wish to see the great bearing habit, Large Size, and to taste the quality of the

NEW-ROCHELLE BLACKBERRY,

to visit our grounds from the 6th to the 20th of August next

GEORGE SEYMOUR & CO.

July 20, 1858. South Norwalk, Conn.

FOR SALE.

TWENTY SOUTHDOWN SHEEP,

By JOHN B. EDGAR, Rahway, New-Jersey.

Imported Alderney Bulls, Tartar Sheep.

An Imported Alderney Bull, 19 months old, and a Bull Calf, 4 months old, and two Tartar Lamb Bucks for Sale. Apply to WILLIAM REDMOND, 59 Park Place.

Catch The Tree Insects.

A NEW, SIMPLE and EFFECTIVE apparatus for catching all kinds of INSECTS, Canker Worms, Measure Worms, Aphides, &c., &c., has just been invented by Capt. Wm. W. Taylor, of South Dartmouth, Mass. The immediate home demand is now exhausting all that can be made, but arrangements will soon be completed to manufacture them fast enough to meet the wants of a wider demand. For further particulars address

WM. W. TAYLOR, South Dartmouth, Mass.

Inventors--Patents--Patentees.

Persons desiring to secure patents in the United States for Europe can receive full instructions, free of charge, by addressing MUNN & CO., Editors of the SCIENTIFIC AMERICAN, New-York City.

THERMOMETERS, BAROMETERS, &c. of reliable quality and various descriptions, among which are those particularly suited for Horticultural purposes, which register the coldest and warmest degree of temperature during the 24 hours, in the absence of the observer. For sale by

D. EGGERT & SON, 239 Pearl-st.

RUSSIA OR BASS MATS, selected expressly for budding and tying. GUNNY BAGS, TWINES, &c., suitable for Nursery purposes, for sale in lots to suit, by D. W. MANWARING, Importer, 248 Front-street, New-York

PERKINS' Corn Husking Machine, $5 50. Agents wanted to solicit orders in every Town and County. Terms usually liberal. Address J. PERKINS & CO., West Killingby, Conn.

PITKINS' Potato Digger will dig as fast as fifteen men can pick up—for sale at Agricultural Depot, 100 Murray-St., N. Y. HENRY F. DIBBLEE.

IRON GRAIN MILLS With Cob Crusher attached. For grinding meal or feed this mill is far superior to any other. Grinds rapidly. Simple, durable and cheap. Price $5, is just what is wanted by Farmers or Planters. For sale by R. L. ALLEN, 191 Water-st.

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52 JOHN STREET. NEW YORK.

ARTHUR'S

Self-Sealing Cans and Jars.

Since the introduction of these now celebrated Cans and Jars, over

HALF-A-MILLION HAVE BEEN SOLD,

and notwithstanding all sorts of contrivances for the accomplishment of the same object, most of which were little less than frauds upon housekeepers, have been offered to the public, the *simplicity* of ARTHUR'S, the *ease with which they are managed*, and the *certainty of result*, have made them the favorite Cans and Jars everywhere; and now in

THE FOURTH YEAR

since their introduction, their reputation stands, by general acknowledgment, far above any other can or jar in the market In proof of this, we quote, from almost innumerable testimonials, this one from the

EDITOR OF THE LADY'S BOOK.

in the number for July, 1858. He says:—

"These celebrated Cans and Jars, the first introduced and, by all odds, the best, are steadily coming into general use. Thousands of housekeepers, who, in past seasons, were tempted to try other cans and jars, and who lost more or less of their fruit in consequence, will be glad to learn that Arthur's never fails. *For two seasons we have said, use no other, and we repeat the advice.*"

Arthur's Cans and Jars are

ALL PREPARED FOR SEALING.

They have a channel around the mouth, on the outside, *filled with cement when sold*, and all ready for sealing. You have, after filling your vessel with hot fruit, only to heat your lid, and press it into the cement, when the work is done. If directions are followed carefully, success is always certain.

PATENT STAMP.

*** Take Notice, that ARTHUR'S Cans and Jars all bear the Patent Stamp. On the Tin Cans you will find it impressed in the metal; on the earthenware Jars, in an oval on the bottom; and in raised letters on the sides of the Glass Jars.

SIZES AND MATERIALS.

TIN CANS—Pint, quart, half-gall., and gallon. } The Cans & Jars
FIRE-PROOF STONEWARE (cane-col.) JARS— } (except glass)
Pint, quart, and half-gallon. } NEST
QUEENSWARE—Pint, quart, and half-gallon. } to secure econo-
GLASS—Pint, quart, and half-gallon. } my in freight.

ARTHUR'S SELF-SEALING CANS & JARS

are manufactured under the patent for the United States by

ARTHUR, BURNHAM & GILROY, 117 & 119 South Tenth Street, Philadelphia.

Also manufacturers under the patent for the United States, of the

"OLD DOMINION" COFFEE POT, AND "OLD DOMINION" TEA POT.

*** For Sale by dealers in Housekeeping articles, and Storekeepers generally.

Twelve Diplomas.

Full directions for preserving accompany the cans.

FRUIT CANS.

TAYLOR & HODGETT'S INFALLIBLE SELF SEALING FRUIT CAN WITH BURNET'S ATTACHMENT.

PATENTED AUGUST 21st, 1855.

These cans are so simple in their construction that any one can close fifty cans an hour without the aid of a Tinner. They require neither Solder, Cement nor Wax.

Manufactured and for Sale by

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CIDER MILL AND PRESS—The mill is worked by hand or horse power will make 6 to 12 barrels cider a day—it can also be used for pressing currants, cherries, berries cheese, &c. For Sale by R. L. ALLEN, 191 Water-st.

THE "OLD DOMINION" COFFEE POT.

Thousands of this new Coffee Pot have already been sold, and the demand from all parts of the United States is rapidly on the increase. Wherever introduced, it has given the most complete satisfaction.

THE OLD DOMINION COFFEE POT.

Makes better coffee than it is possible to obtain in any other way, because, by an ingenious but simple arrangement, the housekeeper may *boil her coffee for any length of time without loss of aroma*, thus securing all the elements of the coffee, in their natural and proportional combinations.

THE OLD DOMINION COFFEE POT

Is manufactured under the patent for the United States by

ARTHUR, BURNHAM & GILROY, 117 & 119 South Tenth Street, Philadelphia.

☞ Also, manufacturers for the United States of ARTHUR'S CELEBRATED PATENT AIR-TIGHT SELF-SEALING CANS & JARS, and the

OLD DOMINION TEA POT.

☞ For sale by dealers in Housekeeping articles and Storekeepers generally.

CARRYING FRUITS TO MARKET SAFELY.

PATENT TRANSPORTATION PROTECTOR.

The bruised and unwholesome state, and consequent unsaleableness of tender fruits from want of sufficient care in their transportation is well known.

The Protector is designed for the safe conveyance of peaches, plums, strawberries, blackberries, eggs, or anything that requires more than ordinary care. Specimens may be seen at

R. L. ALLEN'S, No. 191 Water-st, New-York.

Orders for Protectors of larger size than the specimens will be executed, but the heavier the package the more rigid must be the springs. Orders left with R. L. ALLEN, as above will be promptly executed. HENRY B. OSGOOD, Inventor and Manufacturer. Whitinsville, Worcester Co., Mass.

The Great Strawberry.

Felten's Improved Albany Seedling Strawberry,

grown by A. L. FELTEN, of Philadelphia, is now offered for the first time to the public with the assurance, that in all the points which constitute a really desirable first class fruit, (whether for market or private use) it stands without a rival. It is not only of extraordinary size, but it is far more prolific than any other known variety. The yield has been satisfactorily proven to be fully double that of the most esteemed kinds. Its color is a deep, rich, glossy red; while in point of flavor, it is not excelled. THE FELTEN SEEDLING is remarkably solid and firm fleshed—which adapts it admirably for carrying to market, preserving, &c. Being a hermaphrodite, and a remarkably early and late bearer, it may justly be regarded as the most desirable strawberry in the market. Combining as it does the great essentials of extraordinary size, great productiveness, fine color and flavor, unusual firmness of flesh, and late and early bearing, it is offered to the public with the confident belief that it is destined to supercede all others.

Price of Plants, $3 per dozen, or $15 per hundred, securely packed, and delivered at any city Express or Depot, free of charge. A handsome illustration of the fruit, natural size, drawn from the growing plant, furnished on post-paid application.

As the supply of plants is limited, early orders are necessary to secure them. As the entire stock of plants are now in our possession, purchasers are cautioned against all attempts to supply them except through our house.

SPANGLER & GRAHAM, No. 627 Market-st., Philadelphia.

WILSON'S ALBANY SEEDLING!

THE BEST AND MOST PROLIFIC STRAWBERRY KNOWN!!

Yield 150 to 200 Bushels per Acre !!!

Plants of this superior variety for sale in any quantity. The Strawberries of this kind marketed by me the present season being the best and largest sold in Albany, is a sufficient guarantee of the thrift and quality of the plants. Price, packed and delivered in Albany, $10 a thousand, $1 50 a hundred, or $1 for fifty. Orders, with cash, promptly attended to. Address

WM. RICHARDSON, 96 South Pearl St. Albany, N. Y.

To the Tree Trade.

100,000 PLUM TREES.

The attention of the Trade is particularly requested to our Plum Trees, of which we offer the present Autumn 100,000 Trees from one to four years old, grown on a vigorous and hardy Plum stock, of which we have the monopoly. These trees are from four to eight feet in hight, stocky, and perfect pictures of healthful condition.—The varieties are such, as our experience as Plum orchardists, has demonstrated to be eminently worthy of perpetuity.

	doz.	hun.	thous.
PLUMS—50,000 4 to 6 feet in hight, one year old	$3.50	25 00	225.00
PLUMS—10,000 3 to 4 feet in hight, one year old	3.00	20.00	180.00
PLUMS—30,000 4 to 6 feet in hight, two years old	4.50	30.00	250.00
PLUMS—10,000 6 to 8 feet in hight, four years old	6.00	45.00	400.00

C. REAGLES & SON, UNION NURSERIES. Schenectady, N. Y.

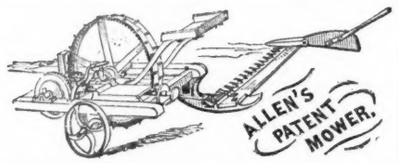
Mediterranean Wheat--A Fresh Importation.

Red and White—Very Superior—Selected and Imported expressly for my retail trade, by my Agent in the Mediterranean. Also all other choice varieties of Wheat.

SEED RYE.

A large assortment of Grass and Clover. Also Field and Garden Seeds. For Sale By R. L. ALLEN, 191 Water-St., N. Y.

PREMIUM STRAWBERRIES.—WM. R. PRINCE & Co., Flushing, N. Y., will transmit their NEW DESCRIPTIVE CATALOGUE OF STRAWBERRIES, to applicants who enclose stamps. This is the only General Collection in the Union, and comprises every estimable variety, of which fifty varieties can nowhere else be obtained. The prices average much lower than are charged by others, and in no case is any kind priced above the lowest rate named elsewhere. Priced Catalogues of every other Department of Nursery Stock sent gratis



STRONG AND DURABLE.—LIGHT OF draft to the team. Will cut all kinds of grass better than it can be done with a scythe—leaving it spread—so as to save labor of spreading it. It can be worked at a slow or fast gait and by oxen if desired. It is easily managed and safe to the driver.

All we claim for it is admitted by those who use it and it has received their universal approbation.

I am making them for the coming season, when desired with a hoist for raising the finger board, a very simple and efficient addition, and can also furnish when desired a very simple Reaping attachment—which does not at all affect its simplicity or efficiency as a mower. R. L. ALLEN, 191 Water-st.

MR. R. L. ALLEN, NEW-YORK:—The subscriber having seen Allen's Patent Mowing Machine in use, both in heavy and light grass, of different sorts, is prepared to speak of its performance with the highest approbation. It was drawn by a pair of light horses with apparent ease, cutting a wide swarth perfectly clean, whether the grass were standing or badly lodged, and leaving it spread in the best possible manner: This was done during and immediately after a heavy shower, and without any clogging of the knives.

MARSHALL P. WILDER,
President of the U. S. Agricultural Society.

I used one of your Mowers in cutting my entire crop this season; then sold it, and it afterward cut the crops of three other farmers, each of whom bought it. One man paid $140 or it. The whole cost of repairs for the season was not one dollar. Another neighbor cut 240 acres with it at no expense for repairs of any consequence. We all consider it in this neighborhood as the only satisfactory machine ever used here.

JAMES E. DUNLAP,
Jacksonville, Morgan Co., Ill., Dec. 1857.

We cut our entire crop of grass with your Allen Mower this season, and then sold it for $240. It is now in constant use and gives full satisfaction. It is daily running in such grass and clover as used to be considered impossible to be cut by machines.

C. G. & A. STARKWEATHER,
Stockton, California, June 17, 1857,

Delano's Independent Tooth Hay and Grain Rake.

This Rake has given universal satisfaction wherever it has been introduced. The ease and facility with which the hay may be placed in windrows, or bunched or cocked preparatory to loading, with entire freedom from dust: its superiority as a gleaner; the adaptation of the teeth to all surfaces, however irregular, are qualities which commend the DELANO RAKE, and must ultimately bring it into exclusive use; in short, it is as greatly superior to the revolver or any other, as the revolver was when first introduced, to the hand rake. We know of farmers who harvest their entire crop of hay by the use of the DELANO RAKE and the fork alone—no hand rake being needed in the field.

Price with wheels complete $25.

SELF ADJUSTING HAY ELEVATOR OR HOISTING FORK.

By the use of this simple and low priced apparatus, a two-horse wagon-load may be unloaded and deposited in the mow, just where it is needed, within ten minutes; and if unusual exertion be made, to avoid a threatened storm, in half that time, the workmen being fresh and ready for re-loading.

Those manufactured by us are of improved construction. We also manufacture the Anti-Friction Blocks, to accompany the Forks. As these blocks cannot take fire, they are therefore cheaper than the common low-priced blocks.

Price of Hay Elevator $8. Anti-Friction Blocks, per set $5. Manufactured and for sale by

D. LANDRETH & SON.
Agricultural Warehouse,
Nos. 21 & 23 south-6th, Philadelphia.

LANDRETH'S RURAL REGISTER AND ALMANAC, published annually, containing a monthly Calendar for the Farm, Garden and Green House, furnished gratis to all applicants.

ALLEN'S ENDLESS CHAIN ONE OR TWO HORSE POWER.—Thresher and Separator—made in best and most durable manner, and is not excelled by any in existence.

EMERY'S ENDLESS CHAIN HORSE POWER, Thresher, &c., at Manufacturer's price.

BOGARDUS' Iron Horse Power.—TAPLIN'S Wood rim circular do.

HALL'S & PITT'S 6 to 8 Horse Power Thresher and Cleaner and several other kinds. For sale by R. L. ALLEN, 191 Water-st.

CORN SHELLERS FOR HORSE OR hand power—Fan Mills—Grain Mills—Vegetable Cutters. Hay and Stalk Cutters. Vegetable Boilers, for boiling for stock. Hay Presses, &c, of most approved kinds. For sale by R. L. ALLEN, 191 Water-st.

Potato Digger.

This is a new and highly improved Implement, got up by myself, after *long experience of working it in the field.* It is by far the best thing of the kind in use. One man and a pair of horses will dig faster than twenty men can pick up. It throws all the potatoes, (even the smallest), clean out of the ground, and leaves them clear of dirt on the surface. R. L. ALLEN, 191 Water-st., New-York.

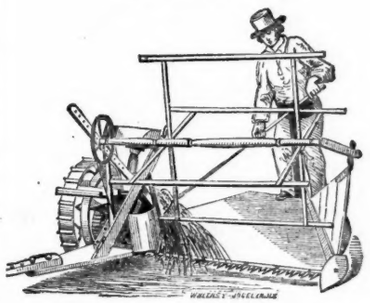
Patent Potato Diggers,

IMPROVED CIDER MILLS and PRESSES, HAY ELEVATORS, great labor savers.

For sale by TREDWELL & PELL, 251 Pearl Street, New-York.

FOR THE HARVEST OF 1858.

The best Combined Reaping and Mowing Machine in use, as endorsed by the United States Agricultural Society.



Manny's Patent with Wood's Improvement.

It is with much pleasure and renewed confidence, that I offer my machine to the Farmers for the coming harvest, with all its improvements and increased high reputation as a combined Machine and Single mower. The large sale the past season, and great success at the National Trial of Harvest Implements at Syracuse in July last, where it was awarded one Gold and two Silver Medals, is conclusive to every unprejudiced farmer that it is the most approved machine of the kind in use, and the subscriber begs to say that they will be perfect and complete in workmanship and material, and are offered to them on terms accommodating and suited to the times. With each machine will be furnished two scythes, two extra guards two extra sections, one extra pinion, and wrench.

Warranted capable of cutting from 10 to 15 acres of grass or grain per day, in a workmanlike manner.

Price of Machines as heretofore. The Combined Machine varies in price according to width of cut and its adaptation in size and strength to different sections of the country, from $125 to $150, delivered here on the cars.

Price of Single Mower, steel Bar.....$115.00

WALTER A. WOOD,
Manufacturer and Proprietor.
Hoosick Falls, N. Y.

TO THE FARMERS, HAY DEALERS, AND PLANTERS OF THE UNITED STATES—INGERSOLL'S IMPROVED PORTABLE HAY and COTTON PRESS, combines greater power and portability, requires less labor, occupies less space, and costs less money than any other hand power machine for baling HAY or COTTON ever offered to the public. It has recently been much improved, and is warranted to give satisfaction.

We have numerous letters from those who have seen and used these presses during the past season, similar to the following from Wm. Thompson, Esq., South Londondary, Vt., who writes Feb. 8, 1858, as follows:

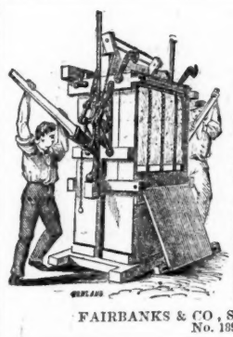
GENTS: "I think your press, with the improvement you have made recently, will exceed anything of the kind yet got up, for it will press more in a day, with only two hands to work it, and do it easier, than any other press in New-England."

No. 1 Press—Weight of Bale 150 to 200 pounds.
No. 2 Press— " " 250 to 300 "

Presses constantly on hand and other sizes and for other purposes made to order. For further information call or address the

FARMERS' MANUFACTURING CO.,
Greenpoint, opposite New-York.

N. B.—The Brooklyn and Williamsburg City Cars run up to Greenpoint, and the New-York Dry Dock stages go to the Greenpoint Ferry.



Ingersoll's

Premium Portable

HAY PRESS.

THIS PRESS combines greater power and portability, requires less labor, occupies less space, and costs less money than any other machine for baling hay ever offered to the public.

It is equally convenient for pressing cotton, hemp, hops, broom corn, rags, husks, &c. Samples may be seen at our warehouse, and circulars, with cuts and full descriptions, will be furnished upon application, by letter or otherwise, to

FAIRBANKS & CO, Scale Manufacturers,
No. 189 Broadway, New-York.

Garden, Field and Flower Seeds.

The subscriber has now on hand a full assortment of Vegetable, Field, Herb and Flower Seeds of the growth of 1857, and of the very best quality, for sale Wholesale and Retail. Orders by mail attended to immediately.

TURNIP SEED.

Strap Leaved Red Top, Extra White Flat Dutch, Large White Norfolk, Large White Globe, Yellow Aberdeen, Yellow Stone, White's Eclipse, Skirving's Purple Top Rutabaga or Russia, Ashcroft's Swede, River's Stubble, Long White French, and all other varieties. Send for a catalogue.

R. L. ALLEN, 191 Water-st.

SEED BUCKWHEAT. EXTRA CLEAN.

Hungarian Grass $5 per bushel or 25 cents per quart CHINESE SUGAR CANE (American and Imported). IMPHEE or AFRICAN SUGAR CANE. R. L. ALLEN, 191 Water-st.

Cane Mills and Distilleries.

GENERAL COPPER-SMITH WORK.

Distilleries of all kinds, for making brandy and alcohol from Chinese Syrup. Steam and horse cane mills, syrup pans, skimmers, dippers, syrup gauges and pumps, brewing apparatus, by steam or fire. JOHN W. REID, 11 Old-slip.

SCHOOLEY'S PATENT PRESERVATORY.

FOR PRESERVING MEATS, FRUITS, VEGETABLES, the products of the Farm and Dairy, and all perishable articles, WITHOUT DAMAGE from heat and moisture in SUMMER, OR COLD IN WINTER.

Invaluable for Farmers, Grocers, Butchers, Candle and Oil Makers, Hotels, Restaurant Keepers, AND IS THE BEST DAIRY OR MILK HOUSE IN THE WORLD.

Milk can be kept sweet for weeks in Summer and Butter made with equal facility the entire season.

A MILK HOUSE on this plan can be kept at 40° the entire season, causing a perfect yield of cream, and the purest butter known.

For rights, plans, or estimates, apply to the undersigned.

H. C Getty, at John Gebney's, West Street, New-York, is acting in the City of New-York.

J. L. ALBERGER,
Buffalo, N. Y.

WHEELER & WILSON'S Sewing Machines,

OFFICE 343 BROADWAY, NEW-YORK.

SEND FOR A CIRCULAR.

Patent Alarm Whistles and Speaking Pipes

MANUFACTURED AND FOR SALE BY

W. OSTRANDER,
Sole Patentee and Maker
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BOSTON, May 13, 1858.

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☞Owing to the illness of the Publishing Editor, who usually attends personally to that department, this number goes to press without several notices of exhibitions, books, &c., &c., that would have otherwise appeared.

Our "Basket" Articles

will be found unusually valuable this month, as several good suggestions are thrown into the small type, bothon account of their too late arrival or preparation for the preceding pages, and also to make room for a greater variety. The larger we make the paper the more crowded we seem to be for room to get in the mass of information flowing into our storehouse.

Please Speak of the German Edition.

Many of our readers have German friends and neighbors, who do not read the English language. By speaking to them respecting our German Edition, they will not only favor our new enterprize, but confer a benefit upon those they may induce to subscribe. While there are several million Germans in this country, there is not another journal of this character and size, printed in their language—indeed this is now the *only* German Agricultural paper in the United States.

☞Any one desiring copies of the German Edition (to be shown as specimens), will be cheerfully supplied on making the fact known to us. The German Edition is in all respects, like the English, both in matter and engravings—the reading matter of course being in the German language.

The Long White French Turnip Seed

Is being rapidly called for, and is nearly run out. Any person sending in new subscribers for either the English or German edition, may still order an ounce for each dollar forwarded. A 3-cent postage stamp should hereafter be sent to prepay the postage on each half ounce ordered. The seed may be sown any time in July, or the first half of August.

An ounce package will suffice for twenty square rods, if carefully sown, and this will furnish a fine supply of turnips for table use next Winter and Spring, and some for feeding. We are now using some of last year's crop, and find them white, firm, sweet, free from rankness of taste, or woody texture. As previously stated, we believe this the best turnip ever raised in this country, and we expect to be able to obtain a large supply of the seed to add to our list of seeds for general distribution to all subscribers next Winter.

EXTRA PREMIUMS,

offered *only* in return for time and services to persons procuring and forwarding *new* subscribers to the *American Agriculturist*. The subscribers obtained will themselves be entitled to receive the seeds offered in our regular list, No. 1 to No. 52. ☞Only *one* of the following premiums will be given on the same new subscriber.

Premium No. 4.

To any person obtaining a *new* subscriber we will send *an ounce* package of the seed of the *Long White French Turnip*, described on page 134 of May number. An ounce will be given for *each* new name. The new subscriber will himself be entitled to select the usual packages of the seeds, Nos. 1 to 52, offered in our February number. The names may be sent at $1 each (or at club rates when for new clubs or additions to those already formed); but when the seed is to go to Canada or to the Pacific Coast, 14 cents additional will need to be sent to us for extra postage on each ounce of seed forwarded.

Premium No. 1.

Webster's Unabridged Dictionary, is still offered for 40 subscribers, obtained at club rates.

Convention of Agricultural Editors.

In accordance with the nearly unanimous expression of the Agricultural press of the country, a preliminary meeting of Editors of Agricultural and Horticultural Journals will be held in New York City on the 14th day of September. The place and hour of meeting will be announced in a circular addressed specially to members of the press.

It is understood, of course, that the gentlemen present at the preliminary meeting will be guided by the circumstances in deciding whether to organize a permanent association at once, or adjourn to another time.

Propositions have been received for holding the preliminary meeting at Springfield, and other points, but three-fourths of the agricultural press of the country have spoken in favor of the above time and place, and the originators of the movement have no authority to change that decision. The 14th of September is the opening day of the American Pomological Convention in New York City—an occasion of unusual interest this year. The first day is named for the Editors' meeting, in order to give those who desire to do so an opportunity to be present here and afterwards visit Springfield.

PROSPECTUS OF THE

American Agriculturist.

PRINTED IN THE GERMAN LANGUAGE.

Beginning July 1st, 1858.

We take pleasure in Announcing to the large class of German people interested in Farming, Gardening, Fruit Growing, Stock raising, Implements, &c., as well as those who have, perchance, but a small village or city plot under culture, that in order to meet the wants of those who as yet read only the German Language, we have completed arrangements, by which hereafter, the *American Agriculturist* will be printed simualtaneously in both the English and GERMAN LANGUAGES.

There are in the United States alone, several millions of German people, among whom are found a large number of our most industrious and pains-taking cultivators of the Soil. In Germany more investigations are being made in Scientific and practical Agriculture, than in almost any other Country; and besides a large number of Agricultural Schools and Colleges, there are several periodicals devoted especially to practical Agriculture and Horticulture. But in this country next to nothing has been done in this department.

We, therefore, in response to oft repeated calls from the German people, very cheerfully enter the open field, and will endeavor to supply what seems to be a great desideratum, viz.: a Journal in the *German* Language, devoted exclusively to subjects connected with SOIL CULTURE, or to the out-door and In-door labors of Rural Life.

Since practical operations are founded upon the same principles, and the modes of tillage are the same, whether pursued by those speaking English or German, we believe that a Journal carried on in both Languages may be better in each, than if published in either Language only, since a wider class of practical experience will thus be drawn from.

Again, the use of the same engravings and editorials, as well as publishing force, in both editions, will economize expense, so that a much cheaper Journal, or a better one can be supplied for the same cost, than if two separate enterprizes were carried on.

The *American Agriculturist* was originated in 1842, and it has now attained a circulation *greater than any other live journal in the world*, while it is on all hands acknowledged to be a standard work, unequalled for the large amount of practical information it supplies at a very small cost. Time, patience and long experience have been required to bring it to its present standard. The subscribers to the German edition will at once reap the benefit of all these advantages.

The teachings of the AGRICULTURIST *are confined to no State or Territory, but are adapted to the wants of all sections of the country—it is, as its name indicates, truly* AMERICAN IN ITS CHARACTER.

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Postage anywhere in the United States and Territories must be paid by the subscriber, and is *only six cents a year*, if paid in advance at the office where received.

Subscriptions can begin Jan. 1st., July 1st., or at any other dates if specially desired. (For the present year, subscriptions to the German edition, when desired, will be taken from July to December inclusive, at half the above yearly rates.)

The paper is considered *paid* for whenever it is sent, and will be promptly discontinued when the time for which it is ordered expires.

All business and other communications should be addressed to the Editor and Proprietor,

ORANGE JUDD,
No. 189 Water st, New-York.

☞Be careful to give plain directions for the name of each subscriber, and of his Post Office, County and State.

☞*Both* Editions are **Stereotyped**—so that back numbers of the English Edition from June 1, 1857, and of the German from July 1858, *can always be supplied*

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